

Facility ID: 0448002099 Issuance type: Final State Permit To Operate

This version of facility specific terms and conditions was converted from a database format to an HTML file during an upgrade of the Ohio EPA, Division of Air Pollution Control's permitting software. Every attempt has been made to convert the terms and conditions to look and substantively conform to the permit issued or being drafted in STARS. However, the format of the terms may vary slightly from the original. In addition, although it is not expected, there is a slight possibility that a term and condition may have been inadvertently "left out" of this reproduction during the conversion process. Therefore, if this version is to be used as a starting point in drafting a new version of a permit, it is imperative that the entire set of terms and conditions be reviewed to ensure they substantively mimic the issued permit. The official version of any permit issued final by Ohio EPA is kept in the Agency's Legal section. The Legal section may be contacted at (614) 644-3037.

In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

- [Go to Part II for Emissions Unit P001](#)
- [Go to Part II for Emissions Unit P002](#)
- [Go to Part II for Emissions Unit P003](#)
- [Go to Part II for Emissions Unit P004](#)
- [Go to Part II for Emissions Unit P005](#)
- [Go to Part II for Emissions Unit P006](#)
- [Go to Part II for Emissions Unit P007](#)
- [Go to Part II for Emissions Unit P008](#)
- [Go to Part II for Emissions Unit P009](#)
- [Go to Part II for Emissions Unit P010](#)
- [Go to Part II for Emissions Unit P011](#)
- [Go to Part II for Emissions Unit P012](#)
- [Go to Part II for Emissions Unit P013](#)

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P001 - Resin Paste Mixer 1	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions, excluding emissions from non- photochemically reactive clean-up materials, shall not exceed 1.62 lbs/hr, 38.88 lbs/day and 7.09 tons/year.  See section A.2.b below.  Particulate emissions (PE) shall not exceed 0.024 lb/hr and 0.1 ton/year.  Visible emissions (VE) shall not exceed 0% opacity as a 6-minute average.  OC emissions from clean-up materials from all emissions units at this facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See A.2.c below. See section A.2.a below. See section A.2.a below. See section A.2.a below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2) OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	

2. **Additional Terms and Conditions**
  - (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the mixing operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall

not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant and non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.
2. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month (for each HAP the sum of (b times d) for each resin);
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. the color of the emissions;
  - b. the total duration of any visible emission incident; and
  - c. any corrective actions taken to eliminate the visible emissions.
5. The permit to install for this emissions unit [P001] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

6. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
7. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
8. The permittee shall collect and record on a daily basis whether or not the particulate control, fabric filter system was in service when the emissions unit was in operation.
9. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
  - a. an identification of each day during which the average hourly OC emissions, excluding cleanup materials, from this emissions unit exceeded 1.62 lbs/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.88 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - e. an identification of each day during which an inspection was not performed by the required frequency; and
  - f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control, fabric filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.

3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

1.62 lbs/hr of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

38.88 lbs/day of OC, excluding emissions from cleanup materials.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$EM(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC)$

where:

$EM(OC)$  = OC emissions from the resin mix operations, in pounds per day;

$W_i$  = the weight of resin mix  $i$  produced, as specified in section C.1.b, in pounds per day;

$OC_i$  = the OC content of mix  $i$ , as specified in section C.1.c, in percent by weight; and

$EF(OC)$  = the emissions factor from AP-42 Chapter 6.4, Table 6.4-1 (1/95) for VOC emissions from mixing acrylic varnish, which is 0.01 pound per pound of available OC content.

Emission Limitation:

7.09 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i)$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content of the cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

0.024 lb/hr of PE

Applicable Compliance Method:

Compliance shall be based upon the following equation:

$$E(PE) = P \times \text{CONCsolid} \times EF(PE) \times (1-CE)$$

where:

E(PE) = particulate emissions, in lb/hr;

P = maximum mix production rate, which is 440 lbs/hr as noted in the permit application;

CONCsolid = maximum solids concentration in the mix, which is 237.34 lbs fillers/440 lb batch as noted in the permit application;

EF(PE) = Emission factor of 0.01 as noted in AP-42 Chapter 6.4, Reference 4 to Table 6.4-1 (1/95); and

CE = efficiency of PE control device is 99.0%, or 0.99, as specified in the permit application.

If required, the permittee shall demonstrate compliance using the procedures specified in Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation:

0.1 ton/year of PE

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.024 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

VE shall not exceed 0% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

**Facility ID: 0448002099 Emissions Unit ID: P002 Issuance type: Final State Permit To Operate**

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P002 - Resin Paste Mixer 2	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions, excluding emissions from non- photochemically reactive clean-up materials, shall not exceed 1.62 lbs/hr, 38.88 lbs/day and 7.09 tons/year.  See section A.2.b below.  Particulate emissions (PE) shall not exceed 0.024 lb/hr and 0.1 ton/year.  Visible emissions (VE) shall not exceed 0% opacity as a 6-minute average.  OC emissions from clean-up materials from all emissions units at this facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See section A.2.c below. See section A.2.a below. See section A.2.a below. See section A.2.a below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2) OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)	

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
The OC emissions from the mixing operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).  
The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

- 1. The permittee shall use only non-hazardous air pollutant and non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.
- 2. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.

**C. Monitoring and/or Record Keeping Requirements**

- 1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

- 2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
- the name and identification number of each resin employed;
  - the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - the number of pounds of each resin employed;
  - the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
- i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.
4. The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
- the color of the emissions;
  - the total duration of any visible emission incident; and
  - any corrective actions taken to eliminate the visible emissions.
5. The permit to install for this emissions unit [P002] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:
- Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6
6. 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:
- changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - 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.).
7. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
8. The permittee shall collect and record on a daily basis whether or not the particulate control, fabric filter system was in service when the emissions unit was in operation.
9. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- an identification of each day during which the average hourly OC emissions, excluding cleanup materials, from this emissions unit exceeded 1.62 lbs/hr, and the actual average hourly OC emissions for each such day;
  - an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.88 lbs/day, and the actual OC emissions for each such day;
  - an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - an identification of each day during which an inspection was not performed by the required frequency; and
  - an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
- If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall notify the Toledo Division of Environmental Services in writing of any daily record showing that the particulate control, fabric filter 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 Toledo Division of Environmental Services within 30 days after the event occurs.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.
4. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Toledo Division of Environmental Services by January 31 and July 31 of each year and shall cover the previous 6-month period.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
- 1.62 lbs/hr of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.
- If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.
- Emission Limitation:
- 38.88 lbs/day of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:
- $$EM(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC)$$
- where:
- EM(OC) = OC emissions from the resin mix operations, in pounds per day;
- $W_i$  = the weight of resin mix  $i$  produced, as specified in section C.1.b, in pounds per day;
- $OC_i$  = the OC content of mix  $i$ , as specified in section C.1.c, in percent by weight; and
- EF(OC) = the emissions factor from AP-42 Chapter 6.4, Table 6.4-1 (1/95) for VOC emissions from mixing acrylic varnish, which is 0.01 pound per pound of available OC content.
- Emission Limitation:

7.09 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i)$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material i, as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content of the cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

0.024 lb/hr of PE

Applicable Compliance Method:

Compliance shall be based upon the following equation:

$E(PE) = P \times \text{CONCsolid} \times EF(PE) \times (1-CE)$

where:

$E(PE)$  = particulate emissions, in lb/hr;

$P$  = maximum mix production rate, which is 440 lbs/hr as noted in the permit application;

$\text{CONCsolid}$  = maximum solids concentration in the mix, which is 237.34 lbs fillers/440 lb batch as noted in the permit application;

$EF(PE)$  = Emission factor of 0.01 as noted in AP-42 Chapter 6.4, Reference 4 to Table 6.4-1 (1/95); and

$CE$  = efficiency of PE control device is 99.0%, or 0.99, as specified in the permit application.

If required, the permittee shall demonstrate compliance using the procedures specified in Method 5 of 40 CFR Part 60, Appendix A.

Emission Limitation:

0.1 ton/year of PE

Applicable Compliance Method:

The tpy emission limitation was developed by multiplying the short-term allowable particulate emission limitation (0.024 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

Emission Limitation:

VE shall not exceed 0% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance shall be determined through visible emission observations performed in accordance with the procedures specified in 40 CFR Part 60, Appendix A, Method 9.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P003 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P003 - Pultrusion Line 1-1	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 1.59 lbs/hr, 38.14 lbs/day and 6.96 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See section A.2.c below. See section A.2.a below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

- 1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.
- 2. The permittee shall operate the particulate control, fabric filter system whenever this emissions unit is in operation.

**C. Monitoring and/or Record Keeping Requirements**

- 1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;

- e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

- 2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in Section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

- 3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of (c times d) for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

- 4. The permit to install for this emissions unit [P003] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

- 5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.59 lbs/hr, and the actual average hourly OC emissions for each such day;
- b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.14 lbs/day, and the actual OC emissions for each such day;
- c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
- d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
- e. an identification of each day during which an inspection was not performed by the required frequency; and
- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
- If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
- 1.59 lbs/hr of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.
- If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.
- Emission Limitation:
- 38.14 lbs/day of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:
- $$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$
- where:
- E(OC) = OC emissions as from all resin operations (e.g., styrene), in pounds per day;
- W<sub>i</sub> = the weight of resin i employed, as specified in C.1.b, in pounds per day;

OC<sub>i</sub> = the OC content of resin *i*, as specified in C.1.c, in percent by weight; and

EF(OC<sub>i</sub>) = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

6.96 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

EC(OC) = summation of (V<sub>i</sub> x OC<sub>i</sub>)

where:

EC(OC) = OC emissions from the cleanup materials, in pounds per month;

V<sub>i</sub> = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

OC<sub>i</sub> = the OC content of cleanup material *i*, as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P004 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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 - Pultrusion Line 1-2	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 0.36 lb/hr, 8.72 lbs/day and 1.59 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	See section A.2.c below. See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed (e.g., styrene), calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);

- d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.
4. The permit to install for this emissions unit [P004] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:
- Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6
5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.
- D. Reporting Requirements**
1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 0.36 lb/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 8.72 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from

cleanup materials for each such month;

- d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
- e. an identification of each day during which an inspection was not performed by the required frequency; and
- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

#### E. Testing Requirements

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

0.36 lb/hr of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

8.72 lbs/day of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$  = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

$W_i$  = the weight of resin  $i$  employed, as specified in C.1.b, in pounds per day;

$OC_i$  = the OC content of resin  $i$ , as specified in C.1.c, in percent by weight; and

$EF(OC_i)$  = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

1.59 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P005 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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 - Pultrusion Line 1-3	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 0.73 lb/hr, 17.44 lbs/day and 3.18 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See section A.2.c below. See section A.2.a below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

2. The permittee shall collect and record the following information for each month (total plantwide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

4. The permit to install for this emissions unit [P005] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
  - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 0.73 lb/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 17.44 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - e. an identification of each day during which an inspection was not performed by the required frequency; and
  - f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
  
0.73 lb/hr of OC, excluding emissions from cleanup materials  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.  
  
If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.  
Emission Limitation:  
  
17.44 lbs/day of OC, excluding emissions from cleanup materials

## Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

E(OC) = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

W<sub>i</sub> = the weight of resin i employed, as specified in C.1.b, in pounds per day;

OC<sub>i</sub> = the OC content of resin i, as specified in C.1.c, in percent by weight; and

EF(OC<sub>i</sub>) = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

3.18 tons/year of OC, excluding emissions from cleanup materials

## Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

## Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

EC(OC) = OC emissions from the cleanup materials, in pounds per month;

V<sub>i</sub> = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

OC<sub>i</sub> = the OC content of cleanup material i, as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

## Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

## Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

## Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

F. **Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P006 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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 - Pultrusion Line 1-4	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 0.73 lb/hr, 17.44 lbs/day and 3.18 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See section A.2.c below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and

- f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
- the name and identification number of each resin employed;
  - the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - the number of pounds of each resin employed;
  - the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
- i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

4. The permit to install for this emissions unit [P006] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

5. 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:
- changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - 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.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- documentation of the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 0.73 lb/hr, and the actual average hourly OC emissions for each such day;
  - an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 17.44 lbs/day, and the actual OC emissions for each such day;
  - an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - an identification of each day during which an inspection was not performed by the required frequency; and
  - an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
- If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

0.73 lb/hr of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

17.44 lbs/day of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$  = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

$W_i$  = the weight of resin  $i$  employed, as specified in C.1.b, in pounds per day;

$OC_i$  = the OC content of resin  $i$ , as specified in C.1.c, in percent by weight; and

$EF(OC_i)$  = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

3.18 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

EC(OC) = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P007 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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 - Pultrusion Line 1-5	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 0.73 lb/hr, 17.44 lbs/day and 3.18 tons/year.

See section A.2.b below.

Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.

OAC rule 3745-31-05(C) See section B.1 below.  
 OAC rule 3745-21-07(G)(2) See section A.2.c below.  
 See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).  
 The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).  
 The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
- the company identification for each resin employed;
  - the weight of each resin employed, in pounds;
  - the OC content of each resin employed, in percent by weight;
  - the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - the actual number of hours that the emissions unit was in operation; and
  - the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

2. The permittee shall collect and record the following information for each month (total facility-wide):
- the company identification for each cleanup material employed;
  - an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - the volume of each cleanup material applied, in gallons;
  - the OC content of each cleanup material applied, in pounds per gallon;
  - the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
- the name and identification number of each resin employed;
  - the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - the number of pounds of each resin employed;
  - the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.
4. The permit to install for this emissions unit [P007] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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

7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 0.73 lb/hr, and the actual average hourly OC emissions for each such day;
  - an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 17.44 lbs/day, and the actual OC emissions for each such day;
  - an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - an identification of each day during which an inspection was not performed by the required frequency; and
  - an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

#### E. Testing Requirements

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be

determined in accordance with the following methods:

Emission Limitation:

0.73 lb/hr of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

17.44 lbs/day of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$  = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

$W_i$  = the weight of resin  $i$  employed, as specified in C.1.b, in pounds per day;

$OC_i$  = the OC content of resin  $i$ , as specified in C.1.c, in percent by weight; and

$EF(OC_i)$  = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

3.18 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P008 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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 - Pultrusion Line 1-N	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 1.59 lbs/hr, 38.14 lbs/day and 6.96 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See section B.2 below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).

**B. Operational Restrictions**

- 1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.
- 2. The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

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

Month(s)	Maximum Allowable Cumulative Emissions	Maximum Allowable Cumulative Emissions of individual HAP (Tons)	Maximum Allowable Cumulative Emissions of total HAP (Tons)
1	0.83	2.1	
1-2	1.66	4.2	
1-3	2.49	6.3	
1-4	3.32	8.4	
1-5	4.15	10.5	
1-6	4.98	12.6	
1-7	5.81	14.7	
1-8	6.64	16.8	
1-9	7.47	18.9	

1-10 8.30 20.0  
 1-11 9.13 22.1  
 1-12 9.9 24.9

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual emission limitation for individual HAP and total HAP shall be based upon a rolling, 12-month summation of the monthly emissions.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.
4. The permit to install for this emissions unit [P008] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:
 

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
MAGLC (ug/m3): 2028.6

5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
  - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.59 lbs/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.14 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - e. an identification of each day during which an inspection was not performed by the required frequency; and
  - f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs and, for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative emission levels. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

#### E. Testing Requirements

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:  
1.59 lbs/hr of OC, excluding emissions from cleanup materials  
  
Applicable Compliance Method:  
  
Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.  
  
If required, the permittee shall demonstrate compliance with this emission limitation through emission tests

performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

38.14 lbs/day of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$  = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

$W_i$  = the weight of resin  $i$  employed, as specified in C.1.b, in pounds per day;

$OC_i$  = the OC content of resin  $i$ , as specified in C.1.c, in percent by weight; and

$EF(OC_i)$  = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

6.96 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P009 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P009 - Pultrusion Line 2-1	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 1.59 lbs/hr, 38.14 lbs/day and 6.96 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	See section A.2.c below. See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;

- d. the OC content of each cleanup material applied, in pounds per gallon;
- e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
- f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

4. The permit to install for this emissions unit [P009] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.59 lbs/hr, and the actual average hourly OC emissions for each such day;
  - an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.14 lbs/day, and the actual OC emissions for each such day;
  - an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - an identification of each day during which an inspection was not performed by the required frequency; and
  - an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
- If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
- 1.59 lbs/hr of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.
- If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.
- Emission Limitation:
- 38.14 lbs/day of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:
- $$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$
- where:
- E(OC) = OC emissions as from all resin operations (e.g., styrene), in pounds per day;
- W<sub>i</sub> = the weight of resin i employed, as specified in C.1.b, in pounds per day;
- OC<sub>i</sub> = the OC content of resin i, as specified in C.1.c, in percent by weight; and
- EF(OC<sub>i</sub>) = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).
- Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.
- Emission Limitation:
- 6.96 tons/year of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.
- Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

EC(OC) = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P010 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P010 - Pultrusion Line 2-2	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 1.59 lbs/hr, 38.14 lbs/day and 6.96 tons/year.

See section A.2.b below.

Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.

See section B.1 below.

OAC rule 3745-31-05(C)

See section A.2.c below.

OAC rule 3745-21-07(G)(2)

See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
- the company identification for each resin employed;
  - the weight of each resin employed, in pounds;
  - the OC content of each resin employed, in percent by weight;
  - the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - the actual number of hours that the emissions unit was in operation; and
  - the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.
- The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
- the company identification for each cleanup material employed;
  - an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - the volume of each cleanup material applied, in gallons;
  - the OC content of each cleanup material applied, in pounds per gallon;
  - the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).
- The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
3. The permittee shall collect and record the following information each month for the entire facility:
- the name and identification number of each resin employed;
  - the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - the number of pounds of each resin employed;
  - the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit -

by - emissions unit basis.

4. The permit to install for this emissions unit [P010] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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

7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

#### D. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.59 lbs/hr, and the actual average hourly OC emissions for each such day;
  - an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.14 lbs/day, and the actual OC emissions for each such day;
  - an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - an identification of each day during which an inspection was not performed by the required frequency; and
  - an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of

this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:  
Emission Limitation:

1.59 lbs/hr of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

38.14 lbs/day of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$  = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

$W_i$  = the weight of resin  $i$  employed, as specified in C.1.b, in pounds per day;

$OC_i$  = the OC content of resin  $i$ , as specified in C.1.c, in percent by weight; and

$EF(OC_i)$  = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

6.96 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P011 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P011 - Pultrusion Line 2-3	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 1.59 lbs/hr, 38.14 lbs/day and 6.96 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below. See section A.2.c below. See section A.2.a below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	

- 2. **Additional Terms and Conditions**
  - (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

- 1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

- 1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and

- f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

2. The permittee shall collect and record the following information for each month (total facility-wide):
- the company identification for each cleanup material employed;
  - an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - the volume of each cleanup material applied, in gallons;
  - the OC content of each cleanup material applied, in pounds per gallon;
  - the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.

3. The permittee shall collect and record the following information each month for the entire facility:
- the name and identification number of each resin employed;
  - the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - the number of pounds of each resin employed;
  - the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.

A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

4. The permit to install for this emissions unit [P011] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

5. 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:
- changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - 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.).

6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.59 lbs/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.14 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - e. an identification of each day during which an inspection was not performed by the required frequency; and
  - f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
- If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
- 1.59 lbs/hr of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.
- If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.
- Emission Limitation:
- 38.14 lbs/day of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:
- $$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$
- where:
- E(OC) = OC emissions as from all resin operations (e.g., styrene), in pounds per day;
- W<sub>i</sub> = the weight of resin i employed, as specified in C.1.b, in pounds per day;
- OC<sub>i</sub> = the OC content of resin i, as specified in C.1.c, in percent by weight; and
- EF(OC<sub>i</sub>) = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table

4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

6.96 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$EC(OC) = \text{summation of } (V_i \times OC_i)$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P012 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P012 - Pultrusion Line 2-4	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 1.59 lbs/hr, 38.14 lbs/day and 6.96 tons/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.
	OAC rule 3745-31-05(C)	See section B.1 below.
	OAC rule 3745-21-07(G)(2)	See section A.2.c below. See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;

- e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
- f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
- g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
- h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
- i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.

- 4. The permit to install for this emissions unit [P012] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6

- 5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
- 6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
- 7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

#### D. Reporting Requirements

- 1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
  - a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 1.59 lbs/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 38.14 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - d. an identification of each month during which any HAP containing cleanup material or photochemically

reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;

- e. an identification of each day during which an inspection was not performed by the required frequency; and
- f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.

If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.

- 2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

- 1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:

Emission Limitation:

1.59 lbs/hr of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.

Emission Limitation:

38.14 lbs/day of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b, C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

E(OC) = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

W<sub>i</sub> = the weight of resin i employed, as specified in C.1.b, in pounds per day;

OC<sub>i</sub> = the OC content of resin i, as specified in C.1.c, in percent by weight; and

EF(OC<sub>i</sub>) = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

6.96 tons/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

EC(OC) = OC emissions from the cleanup materials, in pounds per month;

V<sub>i</sub> = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

OC<sub>i</sub> = the OC content of cleanup material i, as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.  
Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.  
Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

- 1. None

\*\*\*THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION\*\*\*

Facility ID: 0448002099 Emissions Unit ID: P013 Issuance type: Final State Permit To Operate

[Go to the top of this document](#)

**Part II - Special Terms and Conditions**

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

- 1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (a) None.
- 2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
  - (a) None.

**A. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may 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>
P013 - Pultrusion Line 2-5	OAC rule 3745-31-05(A)(3) (PTI 04-01441, issued 4/20/2006)	Organic compound (OC) emissions shall not exceed 0.19 lb/hr, 4.56 lbs/day and 0.83 ton/year.  See section A.2.b below.  Total OC emissions from clean-up materials from the entire facility shall not exceed 792 lbs/month and 4.75 tons/year.  See section B.1 below.
	OAC rule 3745-31-05(C) OAC rule 3745-21-07(G)(2)	See section A.2.c below. See section A.2.a below.

**2. Additional Terms and Conditions**

- (a) The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). The OC emissions from the resin bath operation consist of styrene, a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5). The combined emissions of hazardous air pollutants (HAP) from all emissions units at this facility shall not exceed 9.9 tons per year of individual HAP and 24.9 tons per year of total HAP, based upon a rolling, 12-month summation of the monthly emissions.

**B. Operational Restrictions**

- 1. The permittee shall use only non-hazardous air pollutant, non-photochemically reactive material (e.g., acetone) for cleanup of this emissions unit.

**C. Monitoring and/or Record Keeping Requirements**

1. The permittee shall collect and record the following information for each day for this emissions unit:
  - a. the company identification for each resin employed;
  - b. the weight of each resin employed, in pounds;
  - c. the OC content of each resin employed, in percent by weight;
  - d. the total OC emission rate for all resins employed, calculated as required in section E.1.b, in pounds per day;
  - e. the actual number of hours that the emissions unit was in operation; and
  - f. the average, hourly OC emission rate for all resins employed, calculated by (d)/(e), in average, pounds per hour.

The daily and hourly (average) OC emissions rates shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
2. The permittee shall collect and record the following information for each month (total facility-wide):
  - a. the company identification for each cleanup material employed;
  - b. an identification of whether or not each cleanup material employed is photochemically reactive or contains HAP;
  - c. the volume of each cleanup material applied, in gallons;
  - d. the OC content of each cleanup material applied, in pounds per gallon;
  - e. the total OC emission rate for each cleanup material, in pounds per month, calculated as required in section E.1.d.; and
  - f. the combined total OC emission rate from all cleanup materials employed at this facility, in pounds per month (= usage, all is assumed to evaporate).

The monthly OC emission rate shall be calculated by no later than the first week of the following month from which information was collected for this emissions unit.
3. The permittee shall collect and record the following information each month for the entire facility:
  - a. the name and identification number of each resin employed;
  - b. the individual HAP content for each HAP of each resin, in weight percent of individual HAP;
  - c. the total combined HAP content of each resin, in weight percent of combined HAPs (sum all the individual HAP contents from b);
  - d. the number of pounds of each resin employed;
  - e. the total individual HAP emissions for each HAP from all resins employed, in tons per month [for each HAP the sum of (b times d) for each resin];
  - f. the total combined HAP emissions from all resins, in tons per month [the sum of c times d for each resin];
  - g. the updated rolling, 12-month total of the individual HAP emissions for each HAP from all resins employed, in tons; and
  - h. the updated rolling, 12-month total of the total combined HAP emissions from all resins employed, in tons.
  - i. A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Toledo Division of Environmental Services. Material Safety Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials. This information does not have to be kept on an emissions unit - by - emissions unit basis.
4. The permit to install for this emissions unit [P013] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s) for the entire facility:
 

Pollutant: Styrene  
 TLV (mg/m3): 85  
 Maximum Hourly Emission Rate (lbs/hr): 15.51  
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 775  
 MAGLC (ug/m3): 2028.6
5. 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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
  - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
  - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
6. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, 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 the evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
  - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.
7. The permittee shall retain a copy of all records on-site, including calculations and supporting information for at least 5 years.

**D. Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that include the following information:
- a. an identification of each day during which the average hourly styrene emissions, excluding cleanup materials, from this emissions unit exceeded 0.19 lb/hr, and the actual average hourly OC emissions for each such day;
  - b. an identification of each day during which the OC emissions, excluding cleanup materials, from this emissions unit exceeded 4.56 lbs/day, and the actual OC emissions for each such day;
  - c. an identification of each month during which the combined OC emissions, from cleanup materials from all emissions units located at this facility, exceeded 792 lbs/month facility-wide, and the actual OC emissions from cleanup materials for each such month;
  - d. an identification of each month during which any HAP containing cleanup material or photochemically reactive cleanup materials were employed, and the actual OC and individual HAP emissions for each such month;
  - e. an identification of each day during which an inspection was not performed by the required frequency; and
  - f. an identification of each instance when an equipment standard(s) or work practice(s) was not implemented.
- If there are no deviations (excursions) during the calendar quarter, the permittee shall submit a statement to that effect.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for each individual HAP and total of all HAPs. These reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

**E. Testing Requirements**

1. Compliance with the allowable emission limitations in sections A.1 and B.2 of these terms and conditions shall be determined in accordance with the following methods:
- Emission Limitation:
- 0.19 lb/hr of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirement specified in section C.1.f.
- If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Method 18, 25 or 25A, and/or 40 CFR Part 51, Appendix M, Methods 204A through 204F, as appropriate, or an equivalent alternate method as approved by Ohio EPA.
- Emission Limitation:
- 4.56 lbs/day of OC, excluding emissions from cleanup materials
- Applicable Compliance Method:
- Compliance shall be demonstrated based upon the record keeping requirements specified in sections C.1.b,

C.1.c and C.1.d. Compliance shall be determined based upon the following equation:

$$E(OC) = \text{summation of } (W_i \times OC_i) \times EF(OC_i)$$

where:

$E(OC)$  = OC emissions as from all resin operations (e.g., styrene), in pounds per day;

$W_i$  = the weight of resin  $i$  employed, as specified in C.1.b, in pounds per day;

$OC_i$  = the OC content of resin  $i$ , as specified in C.1.c, in percent by weight; and

$EF(OC_i)$  = 0.04 (emission factor) for OC emissions (styrene), which is 4% or 0.04 (AP-42 Chapter 4.12, Table 4.12-2 (9/88)).

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound contents of the resin.

Emission Limitation:

0.83 ton/year of OC, excluding emissions from cleanup materials

Applicable Compliance Method:

Compliance shall be demonstrated by summing the daily records required in section C.1.d for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

792 lbs/month of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated based on the monthly record keeping requirement specified in section C.2.f. Determination of OC emissions for all cleanup materials shall be determined based upon the following equation:

$$EC(OC) = \text{summation of } (V_i \times OC_i)$$

where:

$EC(OC)$  = OC emissions from the cleanup materials, in pounds per month;

$V_i$  = the volume of cleanup material applied, as specified in Section C.2.c, in gallons per month; and

$OC_i$  = the OC content of cleanup material  $i$ , as specified in Section C.2.d, in pounds per gallon.

Note: Formulation data or Method 24 of 40 CFR Part 60, Appendix A shall be used to determine the organic compound content cleanup materials employed.

Emission Limitation:

4.75 tons/year of OC, from cleanup materials facility-wide

Applicable Compliance Method:

Compliance shall be demonstrated by summing the monthly records required in section C.2.f for the calendar year, and then dividing this total (lbs/year) by 2000 lbs/ton.

Emission Limitation:

9.9 tons/year as a rolling, 12-month summation of individual HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.g.

Emission Limitation:

24.9 tons/year as a rolling, 12-month summation of total, combined HAP for the facility

Applicable Compliance Method:

Compliance shall be demonstrated based on the record keeping requirement specified in section C.3.h.

**F. Miscellaneous Requirements**

1. None