

Facility ID: 1409040958 Issuance type: Final State Permit To Operate

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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.

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

Facility ID: 1409040958 Emissions Unit ID: P001 Issuance type: Final State Permit To Operate

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**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 - Mold Shop - Resin Layup and Fiberglass Coating Operations	OAC rule 3745-31-05(A)(3) (PTI 14-05421)	Organic Compound (OC) emissions shall not exceed 8 pounds per hour, 40 pounds per day and 5.0 tons per year from coatings, resins and gelcoats.
		Organic Compound (OC) emissions shall not exceed 33.5 pounds per day and 4.2 tons per year from cleanup materials.
		Particulate Emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter shall not exceed 0.45 pound per hour and 2.0 ton per year.
		The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). The requirements established pursuant to this rule are equivalent to the requirements of OAC rule 3745-31-05(A)(3)
	OAC rule 3745-21-07(G)(2)	Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-07(A)(1)	
	OAC rule 3745-17-11(B)(1)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. **Additional Terms and Conditions**
  - (b) The hourly and annual PM/PM10 emission limitations outlined are based upon the emissions unit's Potential to Emit(PTE). Therefore, no records are required to demonstrate compliance with these limitations.

**B. Operational Restrictions**

1. The styrene content of the resins employed in this emissions unit shall not exceed 50% by weight.
2. The styrene content of the gel coats employed in this emissions unit shall not exceed 47% by weight.
3. The methyl methacrylate content of the gel coats employed in this emissions unit shall not exceed 5% by weight.
4. The amount of resin employed in this emissions unit shall not exceed 16,800 lbs/year.
5. The amount of gel coat employed in this emissions unit shall not exceed 12,790 lbs/year.
6. The OC content of cleanup material employed in this emissions unit shall not exceed 6.7 pounds of OC per gallon.
7. The amount of cleanup material used in emissions unit P001 shall not exceed 5 gallons/day and 1,260 gallons/year.

8. The permittee shall employ nonphotochemically reactive cleanup materials in this emissions unit.
- C. **Monitoring and/or Record Keeping Requirements**
1. The permittee shall collect and record the following information for each day for emissions unit P001.
    - a. The company identification for each resin, gel coat, surface coating material, and cleanup material employed.
    - b. The number of pounds of each resin, gel coat and surface coating material employed.
    - c. The percent styrene of each resin and gel coat employed in this emissions unit.
    - d. The percent methyl methacrylate of each gel coat employed in this emissions unit.
    - e. The OC content of each surface coating material, in percent by weight.
    - f. The total organic compound emission rate for all resins, gel coat, and surface coating materials in pounds per day.
    - g. The total number of hours the emissions unit was in operation.
    - h. The average hourly organic compound emission rate for all resins, gel coat, and surface coating materials, in pounds per hour (f / g).
    - i. The number of gallons of each cleanup material employed.
    - j. The organic compound content of each cleanup material, in pounds per gallon.
    - k. The cleanup material emission rate in pounds per day (i x j).
    - l. Documentation on whether each cleanup material is a photochemically reactive material
 

[Note: The coating information must be for the coatings as employed, including any thinning solvents added at the emissions unit. Also, the definitions of "nonphotochemically reactive" is based upon OAC rule 3745-21-01(C)(5).]

2. The permit to install for this emissions unit P001 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Ground-Level Concentration (MAGLC).

The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: styrene  
 TLV (ug/m<sup>3</sup>): 85,200  
 Maximum Hourly Emission Rate (lbs/hr): 0.427  
 Predicted 1-Hour Maximum Ground-Level  
 Concentration (ug/m<sup>3</sup>): 992  
 MAGLC (ug/m<sup>3</sup>): 2029

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.).

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.

**D. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include the following information:
  - a. An identification of each day during which the organic compound emissions from the resin, gel coat, and surface coating materials exceeded 8 pounds per hour and/or 40 pounds per day, and the actual organic compound emissions for each such day.
  - b. An identification of each day during which the OC content of the cleanup materials employed exceeded 6.7 pounds of OC per gallon, and the actual OC content of the non-compliant cleanup materials employed.
  - c. An identification of each day during which the amount of cleanup materials employed exceeded 5 gallons per day, and the actual gallons per day of cleanup materials employed.
  - d. An identification of each day during which the styrene content of the resin employed exceeded 50% by weight, and the actual styrene content of the non-compliant resin employed.
  - e. An identification of each day during which the styrene content of the gel coat employed exceeded 47% by weight, and the actual styrene content of the non-compliant gel coat employed.
  - f. An identification of each day during which the methyl methacrylate content of the gel coat employed exceeded 5% by weight, and the actual methyl methacrylate content of the non-compliant gel coat employed.
  - g. An identification of each day during which cleanup materials were employed that were photochemically reactive, as defined in OAC rule 3745-21-01(C)(5).
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.
3. The permittee shall submit annual reports which identify the amount of resin and gel coat used in pounds and the amount of cleanup material used in gallons for the previous calendar year. These reports shall be submitted by January 31 of each year.

**E. Testing Requirements**

1. Compliance with the OC emission limitations for coatings (resin, gelcoat, and surface coatings) in emissions unit P001 shall be demonstrated by using the following emission factors and equations:
  - a. Resin Emission Factor = 0.062 , at 50% styrene content based on CFA Emission Models for the Reinforced Plastics Industry, Unified Emission Factors for Open Molding, dtd 7/23/01.  
  
Gel Coat Emission Factor = 0.292, at 47% styrene content based on CFA Emission Models for the Reinforced Plastics Industry, Unified Emission Factors for Open Molding, dtd 7/23/01.  
  
Gel Coat MM Emission Factor = 0.0375, at 5% methyl methacrylate content based on CFA Emission Models for the Reinforced Plastics Industry, Unified Emission Factors for Open Molding, dtd 7/23/01.
  - b.  $\#/\text{hr OC emissions} = (0.062) * (\text{pounds of resin employed during the day}) / (\text{hours of production for each day}) + (0.292) * (\text{pounds of gel coat employed during the day}) / (\text{hours of production for each day}) + (0.0375) * (\text{pounds of gel coat employed during the day}) / (\text{hours of production for each day}) + (\text{OC content of surface coating materials, in percent by weight}) * (\text{pounds of surface coating material employed during the day}) / (\text{hours of production for each day})$
  - c.  $\#/\text{day OC emissions} = (0.062) * (\text{pounds of resin employed during the day}) + (0.292) * (\text{pounds of gel coat employed during the day}) + (0.0375) * (\text{pounds of gel coat employed during the day}) + (\text{OC content of surface coating materials, in percent by weight}) * (\text{pounds of surface coating material employed during the day})$
  - d.  $\text{Ton/yr OC emissions} = \text{sum of the } \#/\text{day OC emissions for the year} / 2000 \text{ lbs/ton}$   
  
If lower styrene content resins and gelcoats are used, the permittee may adjust the emission factor when calculating the emissions.
2. Compliance with the OC emission limitations for cleanup materials in emissions unit P001 shall be demonstrated by multiplying the OC content by the cleanup material usage rate.
3. Compliance with the styrene content limit, methyl methacrylate content limit, and OC content for the cleanup materials specified in terms B.1, B.2, B.3, and B.6 of this permit shall be demonstrated by the recordkeeping in term C.1.
4. Compliance with the material usage restrictions in terms B.4, B.5, and B.7 shall be demonstrated by the recordkeeping in term C.1.
5. Compliance with the visible particulate limitation shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**F. Miscellaneous Requirements**

1. None