

Facility ID: 1431053385 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: 1431053385 Emissions Unit ID: P011 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>
P011 - 500 gallon closed head mix tank vented to baghouse	OAC rule 3745-31-05(A)(3) PTI 14-05363	Particulate emissions (PE) and particulate emissions less than 10 micron in diameter (PM10) shall not exceed 0.16 pound per hour and 0.27 ton per year. Organic compound (OC) emissions shall not exceed 108 pounds per day* and 7.5 tons per year. See Section B.1.
	OAC rule 3745-17-07(A)(1)	* this emissions unit is a batch operation and the daily emissions are based upon the worst case batch employed in this emissions unit. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1) and OAC rule 3745-31-05(C). Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(B)	The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-07(G)(2)	Exempt.
	OAC rule 3745-31-05(C)	See term A.2.c.

2. Additional Terms and Conditions

- (a) Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the emission and production limitations, the use of a closed head mix blade unit for the mix tank, and a baghouse for control of particulate emissions.
The hourly/daily PE/PM10 and OC emission limitations outlined are based upon the emission unit's Potential to Emit (PTE). Therefore, no hourly/daily record keeping, reporting, or testing is required to demonstrate compliance with these limitations.
The total allowable emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act, from emissions units P001, P002, P003, P004, P006, P008, P009, P010, P011, all de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirement to obtain a permit to install pursuant to OAC rule 3745-31-03 currently, and future to-be-installed air contaminant sources, combined, shall not exceed 9.9 tons per year for any single HAP and 24.9 tons per year for any combination of HAPs. Compliance with the above limitations shall be based upon a rolling, 12-month summation.

B. Operational Restrictions

1. This emissions unit shall be limited to producing 415 batches per year.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the number of batches produced in this emissions unit.

2. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.c:
- a. The name and identification number of each HAP containing material employed;
 - b. The individual Hazardous Air Pollutant (HAP)* content for each HAP of each HAP containing material, in pounds of individual HAP per gallon of HAP containing material, as applied;
 - c. The total combined HAP content of each HAP containing material in pounds of combined HAPs per gallon of HAP containing material, as applied [sum all the individual HAP contents from (b)];
 - d. The number of gallons of each HAP containing material employed;
 - e. The name and identification of each HAP containing cleanup material employed;
 - f. The individual HAP content for each HAP of each HAP containing cleanup material, in pounds of individual HAP per gallon of HAP containing cleanup material, as applied;
 - g. The total combined HAP content of each HAP containing cleanup material, in pounds of combined HAPs per gallon of HAP containing cleanup material, as applied [sum all the individual HAP contents from (f)];
 - h. The number of gallons of each HAP containing cleanup material employed [the total number of gallons of each HAP containing cleanup material employed less the number of gallons of each HAP containing cleanup material collected for reuse and disposal];
 - h. The total individual HAP emissions for each HAP from all HAP containing material and HAP containing cleanup materials employed, in pounds or tons per month [for each HAP the sum of (b) times (d) times the emissions factor or overall control efficiency** (if applicable) for each HAP containing material plus the sum of (f) times (h) for each HAP containing cleanup material plus individual HAP emissions from any de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirement to obtain a permit to install pursuant to OAC rule 3745-31-03 currently, and future to-be-installed air contaminant sources at the facility];
 - j. The total combined HAP emissions from all HAP containing materials and HAP containing cleanup materials employed, in pounds or tons per month [the sum of (c) times (d) times the emissions factor or overall control efficiency** (if applicable) for each coating plus the sum of (g) times (h) for each HAP containing cleanup material plus combined HAP emissions from any de minimus emissions units (as defined in OAC rule 3745-15-05), all emissions units exempt from the requirement to obtain a permit-to-install pursuant to OAC rule 3745-31-03 currently, and future to-be-installed air contaminant sources at the facility];

k. The updated rolling, 12-month summation of the individual HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and

- l. The updated rolling, 12-month summation of the combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

**Overall control efficiency shall be from the most recent performance test that demonstrated that the emissions unit was in compliance.

3. 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 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/m3): 85,200

Maximum Hourly Emission Rate (lbs/hr): 1.84

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2027

MAGLC (ug/m3): 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 notify the Hamilton County Department of Environmental Services of any exceedance of the HAP usage limitations set forth in term A.2.c. The permittee shall submit semi-annual reports which identify all exceedances of these limitations, as well as the corrective actions that were taken to achieve compliance. These reports shall be submitted by January 31 and July 31 of each year and cover the previous six calendar months (July through December and January through June, respectively). If no exceedances occurred during the reporting period then a report is required stating so.
- 2. The permittee shall submit annual reports that identify any exceedances of the annual number of batches limitation cited in term B.1. These reports shall be submitted by January 31 of each year.

E. Testing Requirements

- 1. **Emission Limitation:**
Visible particulate emissions from any stack shall not exceed 20 percent opacity as a six-minute average, except as specified by rule.

Applicable Compliance Method:
Compliance 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).
- 2. **Emission Limitations:**
Organic compound (OC) emissions shall not exceed 108 pounds per day* and 7.5 tons per year.

Applicable Compliance Method:
Compliance with the pounds of OC per day and ton per year OC emission limitations in term A.1 shall be demonstrated using the following methods:
 - a. Pounds of OC per day = 36 pounds of organic solvent emitted per batch multiplied by the number of batches per day. 3 batches per day x 36 pounds of OC per batch = 108 pounds of OC per day.
 - b. Tons of OC per year = 36 lbs of organic solvent emitted per batch multiplied by the number of batches per year divided by 2000 pounds per ton. 415 batches per year x 36 pounds of OC per batch x ton per 2000 pounds = 7.5 tons of OC per year.
- 3. **Emission Limitations:**
Particulate emissions (PE) and particulate emissions less than 10 micron in diameter (PM10) shall not exceed 0.16 pound per hour and 0.27 ton per year.

Applicable Compliance Method:
Compliance with the PM/PM-10 emission limitations in term A.1 shall be demonstrated using the following methods:
 - a. Pound of PE/PM10 per hour = lbs of solids used per hour x 0.05 pounds of solid emitted to baghouse x (1-0.99, control efficiency).
321 pounds of solids per hour x 0.05 pound of solids to baghouse per pounds of solids x (1-0.99) = 0.16 pound of PE/PM10 per hour.
 - b. Ton of PE/PM10 per year = 0.16 pounds of PE/PM10 per hour x 8 hours per batch x 415 batches per year x ton per 2000 pounds = 0.27 ton of PE/PM10 per year.
- 4. Compliance with the annual batch limitation cited in section B.1 shall be demonstrated by the recordkeeping in section C.1.
- 5. Compliance with the HAP emission limitations cited in term A.2.c shall be demonstrated by the recordkeeping in section C.2.

F. Miscellaneous Requirements

- 1. The following terms and conditions of this permit are federally enforceable: A, B, C.1, C.2, D and E.