

Facility ID: 1431053385 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.

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

Facility ID: 1431053385 Emissions Unit ID: P009 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>
P009-body filler gallon line	OAC rule 3745-31-05(A)(3) (PTI 14-05267)	Organic Compound (OC) emissions shall not exceed 0.72 pound per hour, 17.28 pounds per day and 3.15 tons per year. Particulate emissions (PE) and particulate emissions less than 10 micron in diameter (PM10) shall not exceed 0.44 pound per hour and 1.93 tons per year. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-07(A)(1). See term A.2.
	OAC rule 3745-21-07(G)(2) OAC rule 3745-17-07(A)(1)	Exempt. Visible particulate emissions from any stack shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-11(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).

2. Additional Terms and Conditions

- (a) The hourly and daily emission limitation(s) outlined are based upon the emission unit's potential to emit. Therefore, no hourly or daily records are required to demonstrate compliance with these limits. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by meeting the specified emission rates, use of a bin-vent fabric filter to control particulate pneumatically conveyed to the mixer and the use of a fabric filter to control particulate emissions from the exhausted mixer.

B. Operational Restrictions

1. The pressure drop across the Torit fabric filter shall be maintained within the range of 1-6 inches of water while the emissions unit is in operation.
2. The pressure drop across the bin-vent fabric filter shall be maintained within the range of 0.1 to 5 inches of water while the emissions unit is in operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate, and maintain equipment to monitor the pressure drop across the fabric filters while the emissions unit is in operation. The monitoring equipment shall be calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across each fabric filter on a weekly basis.
2. 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 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): 85,000

Maximum Hourly Emission Rate (lbs/hr): 0.72

Predicted 1-Hour Maximum Ground-Level
Concentration (ug/m3): 1019

MAGLC (ug/m3): 2024

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 pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across each of the fabric filters did not comply with the allowable ranges specified in sections B.1 and B.2 and information concerning the maintenance and/or repair activities or further investigations that were conducted for those periods of time.
2. The deviation reports shall be submitted as specified in the General Terms and Conditions of this permit.

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. Compliance with the pressure drop limitations in sections B.1 and B.2 shall be determined by the record keeping in section C.1.

3. Emission Limitations:
Organic Compound (OC) emissions shall not exceed 0.72 pound per hour, 17.28 pounds per day and 3.15 tons per year.

Applicable Compliance Method:

The hourly, daily and annual emission limitations were determined using the following equations:

$12,600 \text{ pounds of production/hr (maximum production rate) } \times 0.115^* \text{ pound of OC/ton of production } \times \text{ton}/2000 \text{ lbs} = 0.72 \text{ pound/hour of OC.}$

$0.72 \text{ pound/hr of OC } \times 24 \text{ hrs/day} = 17.28 \text{ pound/day of OC.}$

$0.72 \text{ lb/hr of OC } \times 8760 \text{ hrs/yr } \times \text{ton}/2000 \text{ lbs} = 3.15 \text{ tons/yr of OC.}$

* USEPA Fire 6.0 emission factor for SCC code 30101837

4. **Emission Limitation**
Particulate emissions (PE) and particulate emissions less than 10 micron in diameter (PM10) shall not exceed 0.44 pound per hour and 1.93 tons per year.

The hourly and annual emission limitations were determined using the following equations:

Particulate emissions are the result of emissions during pneumatic conveying to the mixing vessel added to the fugitive emissions in the headspace of the mixing vessel. 5% of the bulk powder is emitted to the bin vent fabric filter for the PE calculation. 1% of the bulk powder is collected from the headspace of the mixing vessel and sent to the fabric filter for the PM10 calculation. The permittee has supplied these emission factors. Both fabric filters have 99.9% control efficiencies.

$12,600 \text{ pounds of production/hr (maximum production rate) } \times 0.58 \text{ pound of bulk powders/lb of production } \times 0.05 \text{ lb of PE/PM10/lb of bulk powders } \times (1-.999) = 0.365 \text{ lb/hr of PE/PM10.}$

$12,600 \text{ pounds of production/hr (maximum production rate) } \times 0.58 \text{ lb of bulk powders/lb production } \times 0.01 \text{ lb of PE/PM10/lb of bulk powders } \times (1-.999) = 0.07 \text{ lb/hr of PE/PM10.}$

Total PE/PM10 emissions $0.365 \text{ lb/hr} + 0.07 \text{ lb/hr} = 0.44 \text{ lb/hr of PE/PM10.}$

$0.44 \text{ lb/hr of PE/PM10} \times 8760 \text{ hrs/day} \times \text{ton}/2000\text{lb} = 1.93 \text{ TPY of PE/PM10.}$

F. **Miscellaneous Requirements**

1. None