

Facility ID: 1677011084 Issuance type: Draft 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: 1677011084 Emissions Unit ID: P001 Issuance type: Draft 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>
ABS (acrylonitrile-butadiene-styrene) plastics compounding, extrusion, pelletizing line	OAC rule 3745-31-05 (PTI 16-1742)	0.61 lb/hr of particulate emissions (includes fugitive and stack emissions) See A.2.a and A.2.d below. no visible particulate emissions from the building ventilation 5.35 lbs/hr of volatile organic compounds (VOC) 4.4 lbs/hr of styrene
	OAC rule 3745-17-07	See A.2.b below.
	OAC rule 3745-17-08	See A.2.b below.
	OAC rule 3745-17-11	See A.2.b below.
	OAC rule 3745-35-07	See A.2.c and B.1 below.

2. Additional Terms and Conditions

- (a) Visible particulate emissions shall not exceed 1% opacity as a 6-minute average, from any stack. The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05. Based on a company-supplied styrene emission factor of 0.0011 lb/lb of ABS resin dust processed and a federally enforceable ABS resin dust throughput limitation of 18,000,000 lbs/rolling, 12-month period (see B.1 below), annual emissions of styrene are limited to 9.9 tons/rolling, 12-month period. Pursuant to the best available technology (BAT) requirements for new sources, as covered under OAC rule 3745-31-05, the permittee shall perform the following:
 - i. Employ a properly installed, operated, and maintained fabric filter (baghouse), in accordance with the manufacturer's recommendations, instructions, and operating manual(s), to adequately control solid particulate emissions from the ribbon blender.
 - ii. Employ properly installed, operated, and maintained fans and other equipment, in accordance with the manufacturer's recommendations, instructions, and operating manual(s) to adequately enclose, contain, capture, and vent particulate emissions to the baghouse.
 - iii. Employ a properly installed, operated, and maintained electrostatic precipitator, in accordance with the manufacturer's recommendations, instructions, and operating manual(s), to adequately control liquid (aerosol) particulate emissions from the extrusion process.
 - iv. Employ properly installed, operated, and maintained hoods, ducts, fans, and other equipment, in accordance with the manufacturer's recommendations, instructions, and operating manual(s) to adequately enclose, contain, capture, and vent particulate emissions to the electrostatic precipitator.
 - v. Employ a properly installed and maintained vertical unobstructed stack, in accordance with good engineering practice, of adequate height and inside diameter to vent odorous emissions from the outlet of the electrostatic precipitator to the ambient air and enable sufficient dispersion of said odorous emissions. If said odorous emissions are not sufficiently dispersed to the ambient air, causing an air pollution nuisance in violation of OAC rule 3745-15-07, then additional control measures shall be

required.

vi. Employ a properly installed, operated, and maintained water container with hoods, ducts, fans, and other equipment, in accordance with good engineering practice, to adequately quench pig rolls immediately after removal from the process, and adequately enclose, contain, capture, and vent liquid particulate emissions and odorous emissions to the electrostatic precipitator.

vii. Close window and door openings, except for normal ingress and egress, while the emissions unit is in operation, to aid stack ventilation of odors.

viii. Maintain the hood curtains (pertaining to any hood or capture device, associated with the ABS process, employing movable curtains) in the down position, while the emissions unit is in operation.

ix. Comply with the OEPA "Air Toxics Policy", as described below in Section F.

B. Operational Restrictions

1. The maximum annual production rate for this emissions unit shall not exceed 18,000,000 pounds, based upon a rolling, 12-month summation of the production rates.

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

Maximum Allowable
Month Cumulative Production

1 1,500,000
1-2 3,000,000
1-3 4,500,000
1-4 6,000,000
1-5 7,500,000
1-6 9,000,000
1-7 10,500,000
1-8 12,000,000
1-9 13,500,000
1-10 15,000,000
1-11 16,500,000
1-12 18,000,000

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12-month summation of the production rates.

2. The permittee shall not employ any photochemically reactive materials, as defined under OAC rule 3745-21-01(C) (5), in this emissions unit.
3. The pressure drop across the baghouse shall be maintained within the range of 2 to 4 inches of water while the emissions unit is in operation.

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the production rate for each month; and
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

2. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall collect and record the pressure drop across the baghouse on a daily basis.
3. The permittee shall perform daily checks for any visible particulate emissions from the electrostatic precipitator control system for the extrusion process, while the extruder is in operation. The presence or absence of any visible emissions from the electrostatic precipitator control system shall be noted in an operations log. If any visible emissions are observed from the system, corrective actions shall be taken to eliminate the visible emissions and these actions shall also be noted in the operations log.
4. The permittee shall collect and record the following information for each change where the air toxic modeling was required pursuant to the Air Toxics Policy:
 - a. background data that describes the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.); and
 - b. a copy of the resulting computer model runs that show the results of the application of the Air Toxics Policy for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative production levels.
2. The permittee shall submit pressure drop deviation (excursion) reports that identify all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.

3. The permittee shall submit on a semi-annual basis a report which (a) identifies all days during which any visible particulate emissions were observed from the electrostatic precipitator control system and (b) describes the corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted by January 31 and July 31 of each year to the Director (District Office or local air agency).
4. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition 3 of this permit.
5. The permittee shall submit annual reports that specify the total production and the total emissions of styrene for this emissions unit. Each report shall be submitted by January 31 of each year and shall address the previous calendar year.

E. Testing Requirements

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

0.61 lb/hr of particulate emissions

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance by testing in accordance with USEPA Method 5, 40 CFR Part 60, Appendix A.
Emission Limitation:

5.35 lbs/hr of VOC

Applicable Compliance Method:

The permittee may be required, through appropriate emission testing, to establish the validity of the permit application emission factor of 0.001338 pound of VOC per pound of ABS resin dust. This emission factor times the maximum hourly ABS process weight rate of 4000 lbs/hr yields the emission limitation of 5.35 lbs/hr of VOC.
Emission Limitation:

4.4 lbs/hr of styrene

Applicable Compliance Method:

The permittee may be required, through appropriate emission testing, to establish the validity of the permit application emission factor of 0.0011 pound of styrene per pound of ABS resin dust. This emission factor times the maximum hourly ABS process weight rate of 4000 lbs/hr yields the emission limitation of 4.4 lbs/hr of styrene.
Emission Limitation:

1% opacity as a 6-minute average, from any stack

Applicable Compliance Method:

USEPA Method 9, 40 CFR Part 60, Appendix A
Emission Limitation:

no visible particulate emissions from building ventilation

Applicable Compliance Method:

USEPA Method 22, 40 CFR Part 60, Appendix A

F. Miscellaneous Requirements

1. This permit allows the use of the processing materials specified by the permittee in the application for PTI number 16-1742. In conjunction with the BAT requirements of OAC rule 3745-31-05, pollutant ground-level concentrations were derived in accordance with the Ohio EPA's "Air Toxics Policy", based on the processing materials usage rate and formulation data and the design parameters of the emissions unit's exhaust system, as specified in the application. Compliance with the Ohio EPA's "Air Toxics Policy" was demonstrated for styrene based on the Screen3 model and a comparison of the predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for styrene:

Pollutant: styrene (CAS 100-42-5)

TWA (ug/m3): 85,200
Maximum Hourly Emission Rate (lb/hr): 4.4
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 107
MAGLC (ug/m3): 2,029
2. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by the OAC rule 3745-31-01. The permittee is hereby advised that the following changes to the process may be determined to be a "modification":

a. changes in the composition of the materials used (coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;

b. changes to the emissions unit or its exhaust parameters (e.g., increased emission rate [not including an increase in an "allowable" emission limitation specified in the terms and conditions of this permit], reduced exhaust gas flow rate, and decreased stack height);

- c. changes in the composition of the materials used, or use of new materials, that would result in the emission of an air contaminant not previously permitted; and
 - d. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant that has a listed TLV.
3. The Ohio EPA will not consider any of the above-mentioned as a "modification" requiring a permit to install, if the following conditions are met:
 - a. the change is not otherwise considered a "modification" under OAC Chapter 3745-31;
 - b. the permittee can continue to comply with the allowable emission limitations specified in its permit to install; and
 - c. prior to the change, the applicant conducts an evaluation pursuant to the Air Toxics Policy, determines that the changed emissions unit still satisfies the Air Toxics Policy, and the permittee maintains documentation that identifies the change and the results of the application of the Air Toxic Policy for the change.

For any change to the emissions unit or its method of operation that either would require an increase in the emission limitation(s) established by this permit or would otherwise be considered a "modification" as defined in OAC rule 3745-31-01, the permittee shall obtain a final permit to install prior to the change.
4. The permittee shall comply with any applicable State and federal requirements governing the storage, treatment, transport, and disposal of any waste material generated by the operation of the source(s).
5. All the terms and conditions in this permit are federally enforceable pursuant to OAC rule 3745-35-07.
6. The permittee is hereby notified that this permit, and all agency records concerning the operation of this permitted emissions unit, is subject to public disclosure in accordance with OAC rule 3745-49-03.