

Facility ID: 0679000103 Issuance type: Title V Draft Permit

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 III" and before "I. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

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Part II - Specific Facility Terms and Conditions

a State and Federally Enforceable Section

1. The following insignificant emissions units are located at this facility:

B001: 4.2 MMBtu/hr natural gas fired boiler (PTI 06-2045);
B002: 4.2 MMBtu/hr natural gas fired boiler (PTI 06-2045);
R001: adhesive roll coater (PTI 06-2045); and
T001: 3000-gallon diesel fuel storage tank (PTI 06-2045).

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

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b State Only Enforceable Section

1. None

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 0679000103 Emissions Unit ID: P002 Issuance type: Title V Draft Permit

A. State and Federally Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

1. None.

I. 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>
Expanding, curing, and molding of expandable polystyrene (EPS) beads.	OAC rule 3745-31-05(A)(3) (PTI 06-5412)	Emissions of organic compounds (pentane) shall not exceed 300 pounds per hour and 200 tons per year.
2. Additional Terms and Conditions		
a.	Total free pentane content of all EPS beads employed per hour shall not exceed 300 pounds as a daily average.	
(a)	[Authority for term: PTI 06-5412 and OAC rule 3745-77-07(C)(1)]	
b.	Total free pentane content of all EPS beads employed in any rolling, 12-month period shall not exceed 200 tons.	
	[Authority for term: PTI 06-5412 and OAC rule 3745-77-07(C)(1)]	
c.	The free pentane content (equivalent to the organic compounds emission rate) of each raw material shall be determined by multiplying the hourly raw material usage times the pentane content of raw material used, as certified by the manufacturer, times the tested percentage of pentane emitted (100 - residual pentane content).	
	[Authority for term: OAC rule 3745-77-07(C)(1)]	

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II. Operational Restrictions

1. None

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain the following records for each day, unless the calculation of potential emissions using the equation in section A.V.1.a demonstrates that the hourly emission limit can not be exceeded, in which case the following records may be maintained on a monthly basis.
 - a. the company identification for each type of EPS bead employed;
 - b. the number of pounds of each type of EPS bead employed;
 - c. the free pentane content, in percent, of each type of EPS bead employed in expander P002;
 - d. the total free pentane content, in pounds, of all EPS beads employed; and,
 - e. if daily records are required, the total hourly emission rate of pentane as a 24-hour average for all EPS beads employed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

2. The permittee shall maintain monthly records of the total free pentane content, in tons, of all EPS beads employed, as a rolling, 12-month summation.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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IV. Reporting Requirements

1. The permittee shall notify the Ohio EPA, Southeast District Office of any monthly record showing that the total free pentane content of all EPS beads employed (equivalent to the organic compounds emission rate) exceeded 200 tons as a rolling, 12-month summation. A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month during which the limit is exceeded.

[Authority for term: OAC rule 3745-77-07(C)(1)]

2. The permittee shall notify the Ohio EPA, Southeast District Office of any daily record showing that the total free pentane content of all EPS beads employed (equivalent to the organic compounds emission rate) exceeded 300 pounds per hour. A copy of such record shall be sent to the Ohio EPA, Southeast District Office within 30 days following the end of the calendar month during which the emission limit is exceeded.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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V. Testing Requirements

1. Compliance with the emission limitations established in sections A.1.1 and A.1.2 of this permit shall be determined in accordance with the following methods:

a. Emission Limitation:

Emissions of organic compounds (pentane) shall not exceed 300 pounds per hour.

Total free pentane content of all EPS beads employed per hour shall not exceed 300 pounds as a daily average.

Applicable Compliance Method:

Compliance shall be determined by multiplying the maximum hourly raw material usage times the maximum pentane content of raw material used, as certified by the manufacturer, times the maximum tested percentage of pentane emitted (100 - residual pentane content). So long as this calculation of potential emissions demonstrates that the hourly emission limit can not be exceeded, no additional record keeping and reporting requirements are necessary to demonstrate compliance with this limitation.

Until testing of residual pentane in the final product is performed, it will be estimated that 75% of the pentane in the raw material is released during expanding, storage, molding and processing, and 25% remains in the product. The initial calculation is shown below.

$$(4,000 \text{ lbs EPS/hr})(0.08)(0.75) = 240.0 \text{ lbs/hr.}$$

where:

4,000 lbs EPS/hr = the maximum hourly production rate of EPS;
0.08 = the maximum pentane content of raw material, as a weight fraction; and
0.75 = the amount of pentane released, as a weight fraction.

[Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

Emissions of organic compounds (pentane) shall not exceed 200 tons per year.

Total free pentane content of all EPS beads employed in any rolling, 12-month period shall not exceed 200 tons.

Applicable Compliance Method:

Compliance shall be determined by the summation of 12 consecutive monthly emission rates. Monthly emissions shall be determined using the following equation for all products for which a separate emission factor was developed.

Summation of [(monthly raw material usage, in tons) x (raw material pentane content, as documented by the manufacturer, as a weight fraction) x (1.00 - (the average residual pentane content, as determined by the most recent accepted test results, as a weight fraction)) x (1/2000)] for all products = organic compounds emissions, in tons.

[Authority for term: OAC rule 3745-77-07(C)(1)]

2. The permittee shall conduct, or have conducted, testing for residual pentane for all products in accordance

with the following requirements:

- a. The emission testing shall be conducted once each calendar year, but at least 6 months apart.
- b. The emission testing shall be conducted using accepted industry test methods.
- c. Individual emission factors shall be developed for each of the different products.
- d. Sampling shall be representative of worst case conditions in terms of sample location, raw material pentane content, and density for each product sampled. The representative storage time shall be based on the average storage time for each product sampled.
- e. A minimum of three samples shall be collected from each block. At least three separate blocks shall be sampled to determine an emission factor.
- f. An average residual pentane emission factor shall be developed from the sample results by common statistical methods. The individual sample with the lowest residual pentane content shall be noted for the calculation in section A.V.1.a.
- g. The proposed testing procedure, sampling protocol and sampling date shall be communicated to Ohio EPA, Southeast District Office at least two weeks prior to the sampling date.
- h. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s) and acquire data and information necessary to ensure that the operation of the emissions unit and the sampling procedures provide a valid characterization of the emissions from the emissions unit.
- i. The results of the testing shall be submitted to the Ohio EPA, Southeast District Office within 45 days after the testing is completed.

[Authority for term: OAC rule 3745-77-07(C)(1)]

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VI. **Miscellaneous Requirements**

- 1. None

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B. State Enforceable Section

The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

- 1. None.

I. **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>
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2. **Additional Terms and Conditions**

- 1. None

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II. **Operational Restrictions**

- 1. None

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

1. None

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IV. **Reporting Requirements**

1. None

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V. **Testing Requirements**

1. None

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VI. **Miscellaneous Requirements**

1. None