

Facility ID: 1677120043 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. This facility is subject to the requirements of 40 CFR Part 82, Title VI, of the Clean Air Act of 1990.
2. The following insignificant emissions units located at this facility are exempt from permit requirements because they meet the criteria established in ORC rule 3704.036:

P001 - barometric leg #1
T001 - tank unloading station #2
T002 - tank unloading station #3
T003 - tank unloading station #1

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 a Permit to Install for the emissions unit.

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b State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements or because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

B001 - Space Heaters
Z001 - one ton tank unloading station #1
Z002 - perforator #1
Z004 - board scorer #1
Z006 - board scorer #2
Z008 - board scorer #3
Z009 - barometric leg #4
Z010 - printer #1
Z011 - printer #2
Z012 - printer #3
Z016 - hot wire cutter #1
Z017 - hot wire cutter #2

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 a Permit to Install for the emissions unit.

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 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>
P002 - polystyrene foam board extrusion line 2 - barometric leg	OAC rule 3745-31-05(A)(3) (PTI # 16-02388, Issued 2/15/05)	The requirements of this rule also includes compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-31-05(C).
		Organic compound (OC) emissions shall not exceed 1.20 lbs/hour (hr) and 5.28 tons per year (tpy).
		Volatile organic compound (VOC) emissions shall not exceed 0.39 lbs/hr and 1.69 tpy.
	OAC rule 3745-31-05(C) (to avoid non-attainment provisions)	Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month summation of operating hours when employing a blowing agent containing any VOC.
		The tons per rolling 12-month period shall not exceed 32.8 tpy of VOC combined emissions from P002 and P006.
	OAC rule 3745-21-07(G)(2)	See A.II.1 below.

2. Additional Terms and Conditions

- (a) None

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II. Operational Restrictions

- 1. The permittee shall not employ any photochemically reactive liquid organic compounds, as defined in OAC rule 3745-21-01(C)(5), in this emissions unit.

[Authority for term: OAC rule 3745-77-07(C)(1)]
- 2. The permittee shall only employ the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;

- c. 1,1,1-trifluoroethane (HFC-143a) - organic compound;
 - d. 1,1-difluoroethane (HFC-152a) - organic compound; or
 - e. USEPA SNAP approved blowing agent containing VOC.
[Authority for term: OAC rule 3745-77-07(C)(1)]
3. The permittee shall establish operating procedures that will minimize HCFC emissions by maintaining the efficiency of the blowing agent addition and board forming operations.
[Authority for term: OAC rule 3745-77-07(C)(1)]
4. The maximum annual operating hours for this emissions unit shall not exceed 3,240 hours when a blowing agent that contains any VOC is employed, based upon a rolling, 12-month amount of the operating hours.
[Authority for term: OAC rule 3745-77-07(C)(1)]

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall evaluate the blowing agent efficiency on a once per shift frequency to ensure that material is being added to meet product specification by performing a "rate check" or by recording the data from the micro motion mass-flow sensor. Rate checks may be conducted by weighing the amount of blowing agent introduced into the extrusion line during a given period of time, by supplying blowing agent from a container, which is weighed at the beginning and end of the evaluation; or the data from the micro motion mass-flow sensors, which control the flow rate of the blowing agent, will be averaged on a per shift frequency and used to determine blowing agent percent to the extrusion line; or by other procedures approved by the Akron RAQMD and Ohio EPA.
- The permittee shall maintain records of the performance of the blowing agent by rate check or micro-motion flow sensor, on the extrusion line, including date and time, results, i.e., whether the blowing agent rate was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check or micro-motion data.
[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall evaluate the efficiency of the board forming operations (extrusion die and shaping device at the inlet bulkhead of the barometric leg) on a once per day frequency to ensure the amount of scrap material generated is minimized by performing a "trim loss check." The trim loss checks may be conducted by one of the following methods:
- a. calculating the percentage of trim loss by using the weights of the untrimmed and trimmed product; or
 - b. calculating the percentage trim loss using untrimmed and trimmed product widths;
 - c. calculating the percentage trim loss based on weight and width of a trimmed board and the width of an untrimmed board; or
 - d. by other procedures approved by the Akron RAQMD and Ohio EPA.
- The permittee shall maintain records of the performance of trim loss checks on the extrusion line, including date and time, results, i.e., whether the trim was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check.
[Authority for term: OAC rule 3745-77-07(C)(1)]
3. The permittee shall calculate and record the following information on a daily basis:
- a. total amount of raw materials consumed, i.e. polystyrene resin + blowing agent + colorant + flame retardant + fillers, in pounds;
 - b. record of each blowing unit employed, the amount used, and the number of hours it was employed;
 - c. the number of hours of operation; and
 - d. the OC and VOC emission rate, calculated in accordance with the equations in sections A.V.1.a - A.V.1.b below, in pounds per hour (average).
[Authority for term: OAC rule 3745-77-07(C)(1)]
4. The permittee shall maintain monthly records of the following information for this emissions unit:
- a. the operating hours for each month when a blowing agent that contains any VOC is employed;
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours when a blowing agent that contains any VOC is employed;
 - c. during the first 12 calendar months of operation when a blowing agent that contains any VOC is employed following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month;

- d. the total mass VOC emissions, in tons; and
- e. the rolling, 12-month summation of the total mass VOC emissions.

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

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IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total organic compound emissions exceeded 1.2 pounds per hour, and the actual average hourly organic compound emissions for each such day.

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

2. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total volatile organic compound emissions exceeded 0.39 pounds per hour, and the actual average hourly volatile organic compound emissions for each such day.

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

3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation when a blowing agent containing any VOC is employed and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels when a blowing agent containing any VOC is employed.

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

4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC.

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

5. The quarterly deviation reports shall be submitted as specified in Part I - General Term and Conditions of this permit.

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

6. The permittee shall submit quarterly written reports which (a) identify all days during which either the blowing efficiency or trim loss checks results in out of specification results and (b) describe any corrective actions taken bring the results back into proper specifications. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

7. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any blowing agent other than those allowed in section A.II.2 above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

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

8. The permittee shall submit an annual report (this report may be submitted as confidential) beginning after issuance of the final air permit to install summarizing their efforts to replace blowing agent HCFC-142b or any other blowing agent employed that is required to be phased out. This report shall contain information pursuant to, but not limited to, the requirements of the Montreal Protocol established in 1987 to reduce use of ozone depleting substances and adopted by the U.S., any regulation changes to the SNAP program which would make it applicable, any correspondence with federal program officials tracking phase out schedules.

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

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V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

Organic compound (OC) emissions shall not exceed 1.2 lbs/hr; 5.28 tpy OC

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

Hourly OC rate (lbs/hr) = SUM (M) * EF * Porganic

Where:

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

EF = emission factor, 0.0004 OC/lb raw material (accounts for buoyancy factor)

Porganic = Concentration OC blend/BA % content of in-feed

The constant factors were developed by the permittee as the result of stack testing performed at a similar facility for the same product mix.

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by 8760 hours per year and divide the result by 2000 to convert to tons.

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

b. Emission Limitation:

Volatile organic compound (VOC) emissions shall not exceed 0.39 lbs/hr; 1.69 tpy of VOC.

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

Hourly VOC rate (lbs/hr) = Sum (M) x EF * P voc

Where:

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

EF = emission factor, 0.0004 VOC/lb raw material (accounts for buoyancy factor)

PVOC = Concentration VOC blend/BA % content of in-feed.

The constant factors were developed by the permittee as the result of stack testing performed at a similar facility for the same product mix.

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by 8760 hours per year and divide the result by 2000 to convert to tons.

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

c. Emission Limitation:

Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month limitation of operating hours when employing a blowing agent containing any VOC.

Applicable Compliance Method:

Compliance with hours of operation limitation shall be determined based upon record keeping requirements in section A.III.4 of these T&Cs.

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

d. Emission Limitation:

The tons per rolling 12-month period shall not exceed 32.8 tpy VOC combined emissions from P002 and P006.

Applicable Compliance Method:

Compliance with the tons per rolling 12-month period limitation shall be determined based upon record keeping requirements in section A.III.4 of these T&Cs.

[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>
P002 - polystyrene foam board extrusion line 2 - barometric leg		

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. The permit to install for these emissions units (P002 and P006) 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 Acceptable Ground-Level Concentration (MAGLC) and the result of this analysis showed compliance with the Air Toxic Policy. Due to product related confidentiality aspects of this analysis, the results are not listed in this term. But the results can be obtained if needed by the public thru the local air agency (Akron Air Pollution Control in Akron, Ohio).

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

- 2. 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 still 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 (typically for 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 previously modeled;
 - 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

- 3. 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 its 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.

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

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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

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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>
P003 - Foam Insulation Board Manufacturing - Line 3 Barametric Leg	OAC rule 3745-31-05(A)(3) (PTI # 16-02379, Issued 1/11/05) (PTI # 16-402, Issued 11/14/85)	The requirements of this rule also includes compliance with the requirements of OAC rules 3745-21-07(G)(2) and 3745-21-(13) thru (20). Organic compound (OC) emissions shall not exceed 1.47 lbs/hr Exempt, See A.II.2.a below. The tons per rolling 12-month period shall not exceed 6.44 tpy OC
	OAC rule 3745-21-07(G)(2) OAC rule 3745-31-(13) thru (20)	See A.II.2 below.

2. **Additional Terms and Conditions**

- a. The permitted blowing agents (HCFC's) that are employed are exempt from the requirements of OAC rule 3745-21-07(G)(2), pursuant to OAC rule 3745-21-07(G)(9)(f).

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II. **Operational Restrictions**

1. The permittee shall only employ the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;
 - c. 1,1,1-trifluoroethane (HFC-143a) - organic compound; and
 - d. 1,1-difluoroethane (HFC-152a) - organic compound.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall establish operating procedures that will minimize HCFC emissions by maintaining the efficiency of the blowing agent addition and board forming operations.

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

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall evaluate the blowing agent efficiency on a once per shift frequency to ensure that material is being added to meet product specification by performing a "rate check" or by recording the data from the micro motion mass-flow sensor. Rate checks may be conducted by weighing the amount of blowing agent introduced into the extrusion line during a given period of time, by supplying blowing agent from a container, which is weighed at the beginning and end of the evaluation; or the data from the micro motion mass-flow sensors, which control the flow rate of the blowing agent, will be averaged on a per shift frequency and used to determine blowing agent percent to the extrusion line; or by other procedures approved by the Akron RAQMD and Ohio EPA.

The permittee shall maintain records of the performance of the blowing agent by rate check or micro-motion flow sensor, on the extrusion line, including date and time, results, i.e., whether the blowing agent rate was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check or micro-motion data.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall evaluate the efficiency of the board forming operations (extrusion die and shaping device at the inlet bulkhead of the barometric leg) on a once per day frequency to ensure the amount of scrap material generated is minimized by performing a "trim loss check." The trim loss checks may be conducted by one of the following methods:
 - a. calculating the percentage of trim loss by using the weights of the untrimmed and trimmed product; or
 - b. calculating the percentage trim loss using untrimmed and trimmed product widths; or
 - c. by other procedures approved by the Akron RAQMD and Ohio EPA.

The permittee shall maintain records of the performance of trim loss checks on the extrusion line, including date and time, results, i.e., whether the trim was within, above, or below specification; whether corrective actions were initiated; and whether such actions were effective, as shown by the next rate check.

[Authority for term: OAC rule 3745-77-07(C)(1)]
3. The permittee shall calculate and record the following information on a daily basis:
 - a. total amount of raw materials consumed, i.e. polystyrene resin + blowing agent + colorant + flame retardant + fillers, in pounds;
 - b. the number of hours of operation; and
 - c. the organic compound emission rate, calculated in accordance with the equations in section A.V.1.a below, in pounds per hour (average).

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

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IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total organic compound emissions exceeded 1.47 pounds per hour, and the actual average hourly organic compound emissions for each such day.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The quarterly deviation reports shall be submitted as specified in Part I - General Term and Conditions of this permit.

[Authority for term: OAC rule 3745-77-07(C)(1)]
3. The permittee shall submit quarterly written reports which (a) identify all days during which either the blowing

efficiency or trim loss checks results in out of specification results and (b) describe any corrective actions taken bring the results back into proper specifications. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarter.

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

4. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any blowing agent other than HCFC-142b. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

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

5. The permittee shall submit an annual report (this report maybe submitted as confidential) beginning after issuance of the final air permit to install summarizing their efforts to replace blowing agent HCFC-142b or any other blowing agent employed as described in term D.4 above. This report shall contain information pursuant to, but not limited to, the federal Significant New Alternative Policy (SNAP) program and any regulations pertaining to that program, including updates to any pertaining SNAP regulations and correspondence with federal SNAP program officials.

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

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V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation:

Organic compound (OC) emissions shall not exceed 1.47 lbs/hr

Applicable Compliance Method:

Compliance shall be determined in accordance with the following equation:

Hourly OC rate (lbs/hr) = (M / 2619.17) * 1.155

Where:

M = the consumption rate in lbs/hr of all raw materials (polystyrene resin + blowing agent + colorant + flame retardant + fillers) exiting the extruder

The constant factors were developed by the permittee as the result of stack testing performed at a similar facility for the same product mix.

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

- b. Emission Limitation:

The rolling 12-month OC emissions shall not exceed 6.44 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the short term pounds per hour limitation will ensure compliance with the rolling 12-month emission limitation

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

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VI. Miscellaneous Requirements

1. None

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Facility ID: 1677120043 Emissions Unit ID: P003 Issuance type: Title V Draft Permit

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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P003 - Foam Insulation Board Manufacturing - Line 3 Barametric Leg		
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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

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 Emissions Unit ID: P005 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>
Trimming and cutting of the foam board line #1.	OAC rule 3745-31-05(A)(3) PTI # 16-062 Issued 7/12/77 to Poly-Styro Corporation OAC rule 3745-17-07(A)	None
	OAC rule 3745-17-11(B)	The visible particulate emissions PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-21-07(G)(2)	Particulate Emissions (PE) shall not exceed 3.38 pounds per hour. (Table I, 1558 lbs/hr max rate) The permitted blowing agents (HCFC's) that are employed, are exempt from the requirements of OAC rule 3745-21-07(G)(2), pursuant to OAC rule 3745-21-07(G)(9)(f).
	40 CFR Part 64	The following sections are part of this emissions unit's compliance assurance monitoring (CAM) plan: See sections A.2.a, A.III.1, A.III.2, A.III.3, A.III.4, A.IV.1, and A.VI.1 below.

2. **Additional Terms and Conditions**

- a. The baghouse installed on this emissions unit for the control of particulate emissions shall be operated and maintained in accordance with the manufacturer's specifications, instructions and operating manual(s).

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

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II. **Operational Restrictions**

- 1. The permittee shall only employ the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;
 - c. 1,1,1-trifluoroethane (HFC-143a) - organic compound; and
 - d. 1,1-difluoroethane (HFC-152a) - organic compound.

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

- 2. The permittee shall establish operating procedures that will minimize HCFC emissions by maintaining the efficiency of the blowing agent addition and board forming operations

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

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

- 1. The pressure drop across the baghouse shall be maintained within the range of 0.1 and 5.0 inches of water while the emissions unit is in operation.

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

- 2. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and

documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

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

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emission incident; and
- e. any corrective actions taken to eliminate the visible emissions.

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

4. The Permittee shall maintain an operational maintenance log for the baghouse which documents the following:

- a. daily records of the pressure drop across the baghouse;
- b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and
- c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

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

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IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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V. Testing Requirements

1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

The visible PE emissions limit, shall not exceed 20% opacity as a six-minute average, except as provided for by rule.

Applicable Compliance Method:
 OAC rule 3745-17-03(B)
 [Authority for term: OAC rule 3745-77-07(C)(1)]

b. Emission Limitation:

3.38 pounds of PE per hour

Applicable Compliance Method:
 If required, compliance shall be determined based on emissions testing conducted in accordance with the procedures and methods specified in OAC rule 3745-17-03(A).
 [Authority for term: OAC rule 3745-77-07(C)(1)]

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VI. **Miscellaneous Requirements**

1. The Permittee shall ensure the following QA/QC parameters are achieved as part of the facilities CAM Plan:
 - a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22).
 - b. the pressure gauges and pressure monitoring equipment will be calibrated at least once per year.
 - c. Periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

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

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Facility ID: 1677120043 Emissions Unit ID: P005 Issuance type: Title V Draft Permit

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>
Trimming and cutting of the foam board line #1.		

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

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Facility ID: 1677120043 Emissions Unit ID: P006 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>
P006 - polystyrene foam board finishing equipment associated with line 2 - trimming and cutting of foam board.	OAC rule 3745-31-05(A)(3) (PTI # 16-02388, Issued 2/15/05)	The requirements of this rule also includes compliance with the requirements of OAC rules 3745-17-07, 3745-17-11, and 3745-31-05(C). Organic compound (OC) emissions shall not exceed 58.43 lbs/hr and 255.81 tpy. OC emissions shall not exceed 295.78 tpy (total fugitive warehouse storage emissions from all production lines). Volatile organic compounds (VOC) emissions shall not exceed 15.3 lbs/hr and 32.8 tpy. VOC emissions shall not exceed 7.37 tpy (fugitive warehouse emissions). Particulate (PM) emissions shall not exceed 0.44 lbs/hr and 1.94 tpy. 10% opacity as a 6-minute average Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month amount of operating hours when finishing foam boards containing any VOC blowing agents.
	OAC rule 3745-31-05(C) (to avoid non-attainment provisions)	See A.I.2.b below.
	OAC rule 3745-17-07(A)	See A.I.2.b below.
	OAC rule 3745-17-11(B)	See A.I.2.b below.

40 CFR 64

The following sections are part of this emissions unit's compliance assurance monitoring (CAM) plan:

See sections A.2.a, A.III.1, A.III.2, A.III.3, A.III.4, A.IV.1, and A.VI.1 below.

2. Additional Terms and Conditions

- a. The baghouse installed on this emissions unit for the control of particulate emissions shall be operated and maintained in accordance with the manufacturer's specifications, instructions and operating manual(s).
- (a) [Authority for term: OAC rule 3745-77-07(C)(1)]
- b. The requirements established under this rule are less stringent than the requirements of OAC rule 3745-31-05(A)(3).

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II. Operational Restrictions

1. The permittee shall only finish foam board containing the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;
 - c. 1,1,1-trifluoroethane (HFC-143a) - organic compound;
 - d. 1,1-difluoroethane (HFC-152a) - organic compound; or
 - e. USEPA SNAP approved blowing agent containing VOC.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The pressure drop across the baghouse shall be maintained within the range of 0.1 and 5.0 inches of water while the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]
3. The maximum annual operating hours for this emissions unit shall not exceed 3,240 hours when a foam board that contains any VOC blowing agent is finished, based upon a rolling, 12-month amount of the operating hours.

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

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III. Monitoring and/or Record Keeping Requirements

1. The pressure drop across the baghouse shall be maintained within the range of 0.1 and 5.0 inches of water while the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

 - a. the date and time the deviation began;
 - b. the magnitude of the deviation at that time;
 - c. the date the investigation was conducted;
 - d. the name(s) of the personnel who conducted the investigation; and
 - e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

 - f. a description of the corrective action;
 - g. the date corrective action was completed;
 - h. the date and time the deviation ended;
 - i. the total period of time (in minutes) during which there was a deviation;
 - j. the pressure drop readings immediately after the corrective action was implemented; and
 - k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

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

3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

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

4. The Permittee shall maintain an operational maintenance log for the baghouse which documents the following:
 - a. daily records of the pressure drop across the baghouse;
 - b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and
 - c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

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

5. The permittee shall calculate and record the following information on a daily basis:
 - a. total amount of raw materials consumed, i.e. polystyrene resin + blowing agent + colorant + flame retardant + fillers, in pounds;
 - b. record of each blowing agent contained in the foam board;
 - c. the number of hours of operation; and
 - d. the OC and VOC emission rate, calculated in accordance with the equations in sections A.V.1.a - A.V.1.b below, in pounds per hour (average).

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 16-02388]

6. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the operating hours for each month when a foam board that contains any VOC blowing agent is finished; and
 - b. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the operating hours when a foam board that contains any VOC blowing agent is finished.
 - c. during the first 12 calendar months of operation when a foam board that contains any VOC blowing agent is finished following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.
 - d. the total VOC mass emissions, in tons; and
 - e. the rolling, 12-month summation of the total VOC mass emissions.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 16-02388]

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IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;

c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and

d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

2. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total organic compound emissions exceeded 58.43 pounds per hour, and the actual average hourly organic compound emissions for each such day.

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

3. The permittee shall submit deviation (excursion) reports which include an identification of each day during which the average hourly total volatile organic compound emissions exceeded 15.3 pounds per hour, and the actual average hourly volatile organic compound emissions for each such day.

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

4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month operating hours limitation when a foam board that contains any VOC blowing agent is finished and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative operating hours levels when a foam board that contains any VOC blowing agent is finished.

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

5. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month emission limitation for VOC.

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

6. The quarterly deviation reports shall be submitted as specified in Part I - General Term and Conditions of this permit.

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

7. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of any blowing agent other than those allowed in section A.II.1 above. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

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

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V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

a. Emission Limitation:

Organic compound (OC) emissions shall not exceed 58.43 lbs/hr and 255.81 tpy.

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

$$\text{Hourly OC rate (lbs/hr)} = \text{SUM} (M * \text{Trim}\%) * \text{PMix}$$

Where:

SUM = Summation for each OC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that can be removed from board stock

PMix = Mix parameter, OC component of blowing agent

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by 8760 hours per year and divide the result by 2000 to convert to tons.

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

b. Emission Limitation:

Volatile organic compounds (VOC) emissions shall not exceed 15.3 lbs/hr and 32.8 tpy.

Applicable Compliance Method:

Compliance with the hourly limitation shall be determined in accordance with the following equation:

$$\text{Hourly VOC rate (lbs/hr)} = \text{SUM} (M * \text{Trim\%}) * \text{PMix}$$

Where:

SUM = Summation for each VOC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that can be removed from board stock

PMix = Mix parameter, VOC component of blowing agent

Compliance with the annual limitation shall be determined by multiplying the hourly limitation by maximum allowed yearly hours of operation and divide the result by 2000 to convert to tons.

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

c. Emission Limitation:

Particulate (PM) emissions shall not exceed 0.44 lbs/hr and 1.94 tpy.

Applicable Compliance Method:

If required, compliance shall be determined using the following methods:

Methods 1 thru 5 of 40 CFR Part 60, Appendix A.

Compliance with tons per year limitation can be ensured by compliance with the lbs/hr limitation.

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

d. Emission Limitation:

10% opacity as a 6-minute average

Applicable Compliance Method:

OAC rule 3745-17-03(B)(1)

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

e. Emission Limitation:

Annual hours of operation shall not exceed 3240 hours based on a rolling 12-month amount of operating hours when finishing foam boards containing any VOC blowing agents.

Applicable Compliance Method:

Compliance with hours of operation limitation shall be determined based upon record keeping requirements in section A.III.3 of these T&Cs.

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

f. Emission Limitation:

The tons per rolling 12-month period shall not exceed 32.8 tpy VOC combined emissions from P002 and P006.

Applicable Compliance Method:

Compliance with the tons per rolling 12-month period limitation shall be determined based upon record keeping requirements in section A.III.3 of these T&Cs.

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

g. Emission Limitation:

295.78 tpy OC (total fugitive warehouse storage emissions from all production lines)

Applicable Compliance Method:

Compliance with the annual limitation shall be determined in accordance with the following equation:

$$\text{Annual OC rate (tons per year)} = \text{SUM} (M * \text{Trim\%}) \text{EF2} * \text{PMix} * 3240 \text{ hr} / 2000$$

Where:

SUM = Summation for each OC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that is removed from board stock

EF2 = emission factor based on in-feed material less trim with buoyancy accounted for

PMix = Concentration OC blend/BA % content of in-feed

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

h. Emission Limitation:

7.37 tpy VOC (fugitive warehouse emissions)

Applicable Compliance Method:

Compliance with the annual limitation shall be determined in accordance with the following equation:

Annual VOC rate (tons per year) = SUM (M * Trim%) EF2 * PMix * 3240 hr / 2000

Where:

SUM = Summation for each VOC in the blowing agent mix

M = actual raw material in - feed rate factoring in buoyancy factor entering extruder

Trim% = percentage of material that is removed from board stock

EF2 = emission factor based on in-feed material less trim with buoyancy accounted for

PMix = Concentration VOC blend/BA % content of in-feed

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

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VI. **Miscellaneous Requirements**

1. The Permittee shall ensure the following QA/QC parameters are achieved as part of the facilities CAM Plan:
 - a. personnel conducting the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22).
 - b. the pressure gauges and pressure monitoring equipment will be calibrated at least once per year.
 - c. Periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

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

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Facility ID: 1677120043 Emissions Unit ID: P006 Issuance type: Title V Draft Permit

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> |
|--|--------------------------------------|--|
| P006 - polystyrene foam board finishing equipment associated with line 2 - trimming and cutting of foam board. | | |
| 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. The permit to install for these emissions units (P002 and P006) 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 Acceptable Ground-Level Concentration (MAGLC) and the result of this analysis showed compliance with the Air Toxic Policy. Due to product related confidentially aspects of this analysis, the results are not listed in this term. But the results can be obtained if needed by the public thru the local air agency (Akron Air Pollution Control in Akron, Ohio).

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

2. 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 still 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 (typically for 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 previously modeled;
 - 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(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

3. 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 its 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.

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

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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

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Facility ID: 1677120043 Emissions Unit ID: P007 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>
Trimming and cutting of the foam board line #3.	OAC rule 3745-31-05(A)(3) PTI # 16-402 Issued 11/14/85 to U.C Industries Inc.	Particulate Emission shall not exceed 0.66 ton/ yr. foam cutting and trimming operations shall be controlled by means of a primary cyclone collector and baghouse.
	OAC rule 3745-17-07(A)	The visible particulate emissions PE shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)	Particulate Emissions (PE) shall not exceed 5.79 pounds per hour. (Table I, 1558 lbs/hr max rate)
	OAC rule 3745-21-07(G)(2)	The permitted blowing agents (HCFC's) that are employed, are exempt from the requirements of OAC rule 3745-21-07(G)(2), pursuant to OAC rule 3745-21-07(G)(9)(f).
	40 CFR 64	The following sections are part of this emissions unit's compliance assurance monitoring (CAM) plan: See sections A.2.a, A.III.1, A.III.2, A.III.3, A.III.4, A.IV.1, and A.VI.1 below.

2. **Additional Terms and Conditions**

- a. The baghouse installed on this emissions unit for the control of particulate emissions shall be operated and maintained in accordance with the manufacturer's specifications, instructions and operating manual(s).

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

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II. **Operational Restrictions**

- 1. The permittee shall only employ the following blowing agents in this emissions unit:
 - a. chlorodifluoroethane (HCFC-142b) - title VI, class II compound;
 - b. tetrafluoroethane (HFC-134a) - organic compound;

- c. 1,1,1-trifluoroethane (HFC-143a) - organic compound; and
 - d. 1,1-difluoroethane (HFC-152a) - organic compound.
[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall establish operating procedures that will minimize HCFC emissions by maintaining the efficiency of the blowing agent addition and board forming operations
[Authority for term: OAC rule 3745-77-07(C)(1)]

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III. Monitoring and/or Record Keeping Requirements

- 1. The pressure drop across the baghouse shall be maintained within the range of 0.1 and 5.0 inches of water while the emissions unit is in operation.
[Authority for term: OAC rule 3745-77-07(C)(1)]
- 2. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

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

- 3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

[Authority for term: OAC rule 3745-77-07(C)(1)]
- 4. The Permittee shall maintain an operational maintenance log for the baghouse which documents the following:
 - a. daily records of the pressure drop across the baghouse;
 - b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and
 - c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

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

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IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

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V. Testing Requirements

1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

The visible PE emissions limit, shall not exceed 20% opacity as a six-minute average, except as provided for by rule.

Applicable Compliance Method:

OAC rule 3745-17-03(B)

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

5.79 pounds of PE per hour

Applicable Compliance Method:

If required, compliance shall be determined based on emissions testing conducted in accordance with the procedures and methods specified in OAC rule 3745-17-03(A).

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

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VI. Miscellaneous Requirements

1. The Permittee shall ensure the following QA/QC parameters are achieved as part of the facilities CAM Plan:
 - a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22).
 - b. the pressure gauges and pressure monitoring equipment will be calibrated at least once per year.
 - c. Periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.
- [Authority for term: OAC rule 3745-77-07(C)(1)]

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Facility ID: 1677120043 Emissions Unit ID: P007 Issuance type: Title V Draft Permit

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>
Trimming and cutting of the foam board line #3.		

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

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Facility ID: 1677120043 Emissions Unit ID: P008 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>
P008 - Nelmor Foam Grinder	OAC rule 3745-31-05(A)(3) (PTI # 16-02490, Issued 11/15/07)	Organic compound emissions (OC) shall not exceed 138.5 pounds per hour, nor 608.6 tons per year.
	OAC rule 3745-17-07(A)	Volatile organic compound emissions (VOC) shall not exceed 2.5
	OAC rule 3745-17-11(B)	Visible particulate emissions (VE) not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-31-05(C)	Particulate emissions (PE) shall not exceed 3.82 pounds per hour. Particulate matter less than 10 microns (PM10) emissions shall not exceed 7.9 tons per year (see A.2.a).
	40 CFR 64	VOC emissions shall not exceed 11.04 tons per rolling, 12-month period. The following sections are part of this emissions unit's compliance assurance monitoring (CAM) plan: See sections A.2.a, A.III.1, A.III.2, A.III.3, A.III.4, A.IV.1, and A.VI.1 below.

2. Additional Terms and Conditions

- a. Permit to Install 16-02490 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 98%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for particulate emissions.
- (a) [Authority for term: OAC rule 3745-77-07(A)(1)]

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II. Operational Restrictions

1. The maximum annual polystyrene usage shall not exceed 200,000 pounds of R&D scrap expanded polystyrene (EPS) or R&D extruded polystyrene (XPS) foam based on a rolling 12-month summation of the polystyrene foam throughput.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall operate the baghouse installed on this emissions unit, in accordance with the manufacturer's specifications, instructions and operating manual(s), with modification deemed necessary by the permittee, at all times while the emissions unit is in operation.

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

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III. Monitoring and/or Record Keeping Requirements

1. The pressure drop across the baghouse shall be maintained within the range of 0.1 and 5.0 inches of water while the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(C)(1)]
2. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
 - a. the date and time the deviation began;

- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

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

- 3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

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

- 4. The Permittee shall maintain an operational maintenance log for the baghouse which documents the following:
 - a. daily records of the pressure drop across the baghouse;
 - b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and
 - c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

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

- 5. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the total amount of scrap EPS foam processed, including R&D EPS, in pounds;
 - b. the total amount of scrap XPS foam processed, including R&D XPS, in pounds;
 - c. the rolling, 12-month total amount of EPS foam processed, including R&D EPS, in pounds;
 - d. the rolling, 12-month total amount of XPS foam processed, including R&D XPS, in pounds;
 - e. the calculated VOC emission rate, in tons, as calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the grinder (actual emission factor varies depending on type of XPS foam ground and the VOC content of each type of XPS foam); and
 - f. the calculated, rolling, 12-month VOC emission rate, in tons.

[Authority for term: OAC rule 3745-77-07(C)(1), and PTI 16-02490]

- 6. The permittee shall maintain records documenting any time periods when the emissions unit was in operation and the baghouse was not operating.

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IV. Reporting Requirements

- 1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;

- b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
- c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
- d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

- 2. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the annual material usage restriction of 200,000 pounds of R&D scrap EPS or R&D extruded XPS foam; and
 - b. all exceedances of the rolling, 12-month VOC emission limitation of 11.04 tons.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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

- 3. The permittee shall submit deviation (excursion) reports that identify any time periods when the emissions unit was in operation and the baghouse was not operating. Each report shall be submitted within 30 days after the deviation occurs.

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

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V. Testing Requirements

- 1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The visible PE emissions limit, shall not exceed 20% opacity as a six-minute average, except as provided for by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the allowable visible PE limitation above in accordance with OAC rule 3745-17-03(B)(1).

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

- b. Emission Limitations:

PE shall not exceed 3.82 pounds per hour
PM10 shall not exceed 7.9 tons per year.

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on the results of stack testing conducted in accordance with OAC rule 3745-17-03(B)(10).

The permittee may demonstrate compliance with the annual allowable PM10 emission limitation above by multiplying the maximum hourly uncontrolled PE rate [(1,800 pounds/hr) by (1 - 0.95*) and by (1 - .98**)]. The result is then multiplied by the maximum annual number of hours of operation (8760 hours/yr), and then divided by 2000 lbs/ton.

* The capture efficiency is assumed to be 95%.

** The control efficiency is assumed to be 98%.

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

- c. Emission Limitation:

OC emissions shall not exceed 138.5 pounds per hour, nor 608.6 tons per year.

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

As long as compliance with the hourly allowable OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was derived by multiplying the hourly limitation by 8760, and then dividing by 2000).

*Emission Factors:

Extruded Polystyrene foam XPS, including R&D XPS = 0.0176 lb OC per pound of polystyrene**

Expanded polystyrene EPS, including R&D EPS = 0.0014 lb OC per pound of polystyrene**

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

d. Emission Limitation:

VOC emissions shall not exceed 2.5 pounds per hour, nor 11.04 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the hourly allowable VOC emission limitation shall be demonstrated by multiplying the maximum hourly usage rate by the appropriate VOC emission factor*.

Compliance with the annual VOC emission limitation shall be demonstrated based on the record keeping requirements established in section III.2 of this permit.

*Emission Factors:

Expanded polystyrene EPS, including R&D EPS = 0.0014 lb VOC per pound of polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

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VI. **Miscellaneous Requirements**

1. The Permittee shall ensure the following QA/QC parameters are achieved as part of the facilities CAM Plan:
 - a. personnel conducting the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22).
 - b. the pressure gauges and pressure monitoring equipment will be calibrated at least once per year.
 - c. Periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

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

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Facility ID: 1677120043 Emissions Unit ID: P008 Issuance type: Title V Draft Permit

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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Scrap Board Grinder		
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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

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 Emissions Unit ID: P009 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>
P009 - Reclaim Unit No. 1 - Polystyrene Extruder	OAC rule 3745-31-05(A)(3) (PTI # 16-02490, Issued 11/15/07) OAC rule 3745-31-05(C)	Organic compound emissions (OC) shall not exceed 15.6 pounds per hour, nor 62.3 tons per year. Volatile organic compound emissions (VOC) shall not exceed 1.5 tons per rolling, 12-month summation.

2. Additional Terms and Conditions

- (a) None

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II. Operational Restrictions

1. The maximum annual polystyrene usage shall not exceed 200,000 pounds of R&D scrap expanded

polystyrene (EPS) or R&D extruded polystyrene (XPS) foam based on a rolling 12-month summation of the polystyrene foam throughput.

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

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III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;
 - b. the amount of extruded polystyrene (XPS), including R&D XPS used, in pounds;
 - c. the rolling, 12-month total amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;
 - d. the VOC emission rate, in tons, calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the extruder (actual emission factor varies depending on type of XPS foam and the VOC content of each type of XPS foam); and
 - e. the calculated, rolling, 12-month VOC emission rate, in tons.

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

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IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the annual material usage restriction of 200,000 pounds of R&D scrap EPS or R&D XPS foam based; and
 - b. all exceedances of the rolling, 12-month VOC emission limitation of 1.5 tons.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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

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V. Testing Requirements

1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emission Limitation:

OC shall not exceed 15.60 pounds per hour, nor 62.3 tons per year

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

As long as compliance with the hourly allowable OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was derived by multiplying the hourly limitation by 8760, and then dividing by 2000).

* Emission Factors

R&D scrap EPS polystyrene = 0.0016 lb OC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb OC per pound of polystyrene**

XPS ground foam and R&D XPS foam = 0.0142 lb OC per pound of polystyrene**

Reclaim XPS foam = 0.0053 lb OC per lb polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

b. Emission Limitation:

VOC shall not exceed 1.50 tons per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual VOC emission limitation shall be demonstrated based on the record keeping requirements established in section III.1 of this permit.

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

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 1677120043 Emissions Unit ID: P009 Issuance type: Title V Draft Permit

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>
Reclamation of scrap and trim material, North Unit.		

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

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 Emissions Unit ID: P010 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>
P010 - Reclaim Unit No. 2 - Polystyrene Extruder	OAC rule 3745-31-05(A)(3) (PTI # 16-02490, Issued 11/15/07) OAC rule 3745-31-05(C)	Organic compound emissions (OC) shall not exceed 20.2 pounds per hour, nor 80.3 tons per year. Volatile organic compound emissions (VOC) shall not exceed 1.9 tons per rolling, 12-month summation.

2. **Additional Terms and Conditions**

- (a) None

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II. **Operational Restrictions**

1. The maximum annual polystyrene usage shall not exceed 200,000 pounds of R&D scrap expanded polystyrene (EPS) or R&D extruded polystyrene (XPS) foam based on a rolling 12-month summation of the polystyrene foam throughput.

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

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

1. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;
 - b. the amount of extruded polystyrene (XPS), including R&D XPS used, in pounds;
 - c. the rolling, 12-month total amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;
 - d. the VOC emission rate, in tons, calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the extruder (actual emission factor varies depending on type of XPS foam and the VOC content of each type of XPS foam); and
 - e. the calculated, rolling, 12-month VOC emission rate, in tons.

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

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IV. **Reporting Requirements**

1. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the annual material usage restriction of 200,000 pounds of R&D scrap EPS or R&D XPS foam based; and
 - b. all exceedances of the rolling, 12-month VOC emission limitation of 1.9 tons.

The quarterly deviation reports shall be submitted in accordance with the General Terms and Conditions of this permit.

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

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V. **Testing Requirements**

1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

Emission Limitation:

OC shall not exceed 20.20 pounds per hour, nor 80.3 tons per year

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

As long as compliance with the hourly allowable OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was derived by multiplying the hourly limitation by 8760, and then dividing by 2000).

* Emission Factors

R&D scrap EPS polystyrene = 0.0016 lb OC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb OC per pound of polystyrene**

XPS ground foam and R&D XPS foam = 0.0142 lb OC per pound of polystyrene**

Reclaim XPS foam = 0.0053 lb OC per lb polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

- b. Emission Limitation:

VOC shall not exceed 1.90 tons per rolling, 12-month period

Applicable Compliance Method:

Compliance with the annual VOC emission limitation shall be demonstrated based on the record keeping requirements established in section III.1 of this permit.

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

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 1677120043 Emissions Unit ID: P010 Issuance type: Title V Draft Permit

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>
Reclamation of scrap and trim material, North Unit.		

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

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 Emissions Unit ID: P011 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>
Warehouse Operations.	None	None
2. Additional Terms and Conditions		
(a) 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

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Facility ID: 1677120043 Emissions Unit ID: P011 Issuance type: Title V Draft Permit

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>
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

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 Emissions Unit ID: P012 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>
P012 - Vortex Foam Grinder	OAC rule 3745-31-05(C) (PTI # 16-02490, Issued 11/15/07) OAC rule 3745-17-07(A)	Particulate matter emissions less than 10 microns (PM10) shall not exceed 6.6 tons per year (see A.2.a) Visible particulate emissions (PE) shall not exceed 20% opacity, as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B) OAC rule 3745-31-05(A)(3)(b) 40 CFR 64	PE shall not exceed 3.4 pounds per hour. See A.2.b. The following sections are part of this emissions unit's compliance assurance monitoring (CAM) plan:

See sections A.2.a, A.III.1, A.III.2, A.III.3, A.III.4, A.IV.1, and A.VI.1 below.

2. **Additional Terms and Conditions**

- a. Permit to Install 16-02490 for this air contaminant source takes into account the use of a baghouse system, whenever this air contaminant source is in operation, with a minimum control efficiency of 98%, by weight for PE, as a voluntary restriction as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) for particulate emissions.
- (a) [Authority for term: OAC rule 3745-77-07(A)(1)]
- b. The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOCs is less than ten tons per year.

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II. Operational Restrictions

- 1. The permittee shall grind only scrap expanded polystyrene (EPS) foam in this emission unit.
[Authority for term: OAC rule 3745-77-07(C)(1)]
- 2. The permittee shall operate the baghouse installed on this emissions unit, in accordance with the manufacturer's specifications, instructions and operating manual(s), with modification deemed necessary by the permittee, at all times while the emissions unit is in operation.
[Authority for term: OAC rule 3745-77-07(C)(1)]

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III. Monitoring and/or Record Keeping Requirements

- 1. The pressure drop across the baghouse shall be maintained within the range of 0.1 and 5.0 inches of water while the emissions unit is in operation.
[Authority for term: OAC rule 3745-77-07(C)(1)]
- 2. The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop, in inches of water, across the baghouse when the controlled emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the pressure drop across the baghouse on daily basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

Whenever the monitored value for the pressure drop deviates from the limit or range specified in this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:

- a. the date and time the deviation began;
- b. the magnitude of the deviation at that time;
- c. the date the investigation was conducted;
- d. the name(s) of the personnel who conducted the investigation; and
- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the pressure drop readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

This range or limit on the pressure drop across the baghouse is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted limit or range for the pressure drop based upon information obtained during future testing that demonstrate compliance with the allowable particulate emission rate for the controlled emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

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

- 3. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the color of the emissions;

- b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.

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

- 4. The Permittee shall maintain an operational maintenance log for the baghouse which documents the following:
 - a. daily records of the pressure drop across the baghouse;
 - b. dates and findings of any baghouse inspections and maintenance activities performed on the baghouse; and
 - c. calibration dates and maintenance activities performed on the pressure drop monitoring equipment.

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

- 5. The permittee shall maintain records documenting any time periods when the emissions unit was in operation and the baghouse was not operating.

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IV. Reporting Requirements

- 1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the baghouse during the operation of the emissions unit(s):
 - a. each period of time when the pressure drop across the baghouse was outside of the acceptable range;
 - b. an identification of each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - c. an identification of each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - d. an identification of each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s).

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

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

- 2. The permittee shall submit deviation (excursion) reports that identify any time periods when the emissions unit was in operation and the baghouse was not operating. Each report shall be submitted within 30 days after the deviation occurs.

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

- 3. The permittee shall submit deviation (excursion) reports that identify any time periods when the permittee was grinding anything other than scrap EPS foam in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.

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

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V. Testing Requirements

- 1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

The visible PE emissions limit, shall not exceed 20% opacity as a six-minute average, except as provided for by rule.

Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the allowable visible PE limitation above in accordance with OAC rule 3745-17-03(B)(1).

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

- b. Emission Limitations:

PE shall not exceed 3.4 pounds per hour
PM10 shall not exceed 6.6 tons per year

Applicable Compliance Method:

If required, compliance with the hourly allowable PE limitation shall be based on the results of stack testing conducted in accordance with OAC rule 3745-17-03(B)(10).

The permittee may demonstrate compliance with the annual allowable PM10 emission limitation above by multiplying the maximum hourly uncontrolled PE rate [(1,800 pounds/hr) by (1 - 0.95*) and by (1 - .98**)]. The result is then multiplied by the maximum annual number of hours of operation (8760 hours/yr), and then divided by 2000 lbs/ton.

* The capture efficiency is assumed to be 95%.

** The control efficiency is assumed to be 98%.

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

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VI. **Miscellaneous Requirements**

1. The Permittee shall ensure the following QA/QC parameters are achieved as part of the facilities CAM Plan:
 - a. personnel completing the visible emissions checks will routinely familiarize themselves with the procedures and criteria established in US EPA approved test methods (Method 9 and Method 22).
 - b. the pressure gauges and pressure monitoring equipment will be calibrated at least once per year.
 - c. Periodic internal fabric filter baghouse inspections and associated baghouse maintenance will be performed at least once per year.

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

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Facility ID: 1677120043 Emissions Unit ID: P012 Issuance type: Title V Draft Permit

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>
Scrap Board Grinder		
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

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Part III - Terms and Conditions for Emissions Units

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Facility ID: 1677120043 Emissions Unit ID: P013 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>
P013 - Reclaim Unit No. 3 - Polystyrene Extruder	OAC rule 3745-31-05(A)(3) (PTI # 16-02490, Issued 11/15/07)	Organic compound emissions (OC) shall not exceed 20.2 pounds per hour, nor 88.7 tons per year. Volatile organic compound(VOC) emissions shall not exceed 3.1 pounds/hr, nor 13.7 tons per year.

2. Additional Terms and Conditions

- (a) None

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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 monthly records of the following information for this emissions unit:
 - a. the amount of polystyrene used for each category (R&D EPS scrap foam, scrap expanded foam EPS), in pounds;
 - b. the amount of extruded polystyrene (XPS), including R&D XPS used, in pounds;
 - c. the monthly VOC emission rate, in tons, as calculated using the actual emission factors developed by the permittee for each type of XPS foam processed in the extruder (actual emission factor varies depending on type of XPS foam and the VOC content of each type of XPS foam); and

d. the year-to-date VOC emissions, in tons.

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

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IV. **Reporting Requirements**

1. The permittee shall submit annual reports that summarize the actual annual VOC emissions for this emissions unit. The reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

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

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V. **Testing Requirements**

1. Compliance with the emission limitations and the operational restriction in Sections A.I.1 and A.II.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

Emission Limitation:

OC shall not exceed 20.20 pounds per hour, nor 88.7 tons per year

Applicable Compliance Method:

Compliance with the hourly allowable OC emission limitation shall be demonstrated by multiplying the maximum hourly polystyrene usage rate by the appropriate OC emission factor*.

As long as compliance with the hourly allowable OC emission limitation is maintained, compliance with the annual OC emission limitation shall be assumed (the annual limitation was derived by multiplying the hourly limitation by 8760, and then dividing by 2000).

* Emission Factors

R&D scrap EPS polystyrene = 0.0016 lb OC per pound of polystyrene**

Scrap EPS polystyrene = 0.0002 lb OC per pound of polystyrene**

XPS ground foam and R&D XPS foam = 0.0142 lb OC per pound of polystyrene**

Reclaim XPS foam = 0.0053 lb OC per lb polystyrene**

**The emission factors were provided by the permittee and are based on analytical sampling that was performed on various batches of polystyrene scrap foam.

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

b. Emission Limitation:

VOC shall not exceed 3.1 pounds/hr and 13.7 tons per year

Applicable Compliance Method:

Compliance with the annual VOC emission limitation shall be demonstrated based on the record keeping requirements established in section III.1 of this permit.

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

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VI. **Miscellaneous Requirements**

1. None

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Facility ID: 1677120043 Emissions Unit ID: P013 Issuance type: Title V Draft Permit

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>
Reclamation of scrap and trim material, North Unit.		
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