



Street /

Address:  
Ohio Gov.  
Center

**RE: DRAFT PERMIT TO INSTALL  
MAHONING COUNTY  
Application No: 02-13013**

**CERTIFIED MAIL**

**DATE:** 9/12/2000

Cantar/Polyair Corp  
Ray Vershum  
1100 Performance Place  
Youngstown, OH 44502

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1600** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Thomas G. Rigo  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA  
WV

NEDO  
PA

Eastgate Dev & Trans Study



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 02-13013**

Application Number: 02-13013  
APS Premise Number: 0250110960  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Cantar/Polyair Corp  
Person to Contact: Ray Vershum  
Address: 1100 Performance Place  
Youngstown, OH 44502

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1100 Performance Place  
Youngstown, Ohio**

Description of proposed emissions unit(s):  
**Polyurethane foam manufacturing plant.**

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Cantar/Polyair Corp

Facility ID: 0250110960

PTI Application: 02-13013

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

**A. State and Federally Enforceable Permit To Install General Terms and Conditions**

**1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.11 below if no deviations occurred during the quarter.

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- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **3. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

**Issued: To be entered upon final issuance**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

**6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

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shall not be federally enforceable and shall be enforceable under State law only.

## **9. Compliance Requirements**

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

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#### 10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

**Cantar/Polyair Corp**

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**Issued: To be entered upon final issuance**

**B. State Only Enforceable Permit To Install General Terms and Conditions**

**1. Compliance Requirements**

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

**2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**4. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

**5. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

#### **6. Construction of New Sources(s)**

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities prove to be inadequate or cannot meet applicable standards.

#### **7. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

#### **8. Applicability**

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

#### **9. Best Available Technology**

**Cantar/Polyair Corp**

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As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

Cantar/Polyair Corp

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**10. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**11. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**C. Permit To Install Summary of Allowable Emissions**

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	228.9
NOx	0.85

**Cantar/Polyair Corp**

**Facility ID: 0250110960**

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**Issued: To be entered upon final issuance**

**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS**

**A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

**Canta  
PTI A**

Emissions Unit ID: P001

**Issued: To be entered upon final issuance**

**Part III - SPECIAL**

**TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
P001 - Polyethylene foam extruder #1 with a regenerative thermal oxidizer	OAC rule 3745-31-05 (D)	OC: 5.7 tons per rolling 12-month period, see A.I.2.b through A.I.2.d.
	OAC rule 3745-31-05(A)(3)	OC: 2.03 lbs/hr
		NOx: 0.14 lb/MMBTU heat input, 0.85 tons/yr
	OAC 3745-21-07(G)(2)	exempt, see A.I.2.a

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).
- 2.b This emissions unit shall be vented to the regenerative thermal oxidizer (RTO) at all times.
- 2.c The permittee shall employ a control system on this emissions unit such that a minimum of forty-seven percent (47%) of the organic compounds that are used as a blowing agent are captured by weight and that the RTO has a minimum destruction efficiency by weight of ninety-seven percent (97%) of the OC emissions vented to it.
- 2.d The emissions unit shall be equipped with enclosures that will meet the criteria for a permanent total enclosure as specified in 40 CFR Part 51, Appendix M, Method 204.

Canta

PTI A

Emissions Unit ID: P001

**Issued: To be entered upon final issuance****II. Operational Restrictions**

1. Isobutane usage shall not exceed 144 pounds per hour.
2. The maximum annual isobutane usage rate for this emissions unit shall not exceed 394.2 tons, based upon a rolling, 12-month summation of the isobutane usage rates.

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

Month(s)	Maximum Allowable Isobutane Usage (tons)
1	32.9
1-2	65.7
1-3	98.6
1-4	131.5
1-5	164.4
1-6	197.3
1-7	230.2
1-8	263.1
1-9	296
1-10	328.9
1-11	361.8
1-12	394.2

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

3. The average combustion temperature within the RTO, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. This temperature limit may be modified based on the results of future emissions tests that demonstrate compliance.
4. The permittee shall employ isobutane as a blowing/foaming agent. Prior to the use of other blowing/foaming agents, the permittee shall notify the Ohio EPA, Northeast District Office, in writing.

Emissions Unit ID: P001

5. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a three-hour average, whenever the emissions unit is in operation.

### **III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall record the temperature on a continuous basis.

The permittee shall record all 3-hour block of time during which the average combustion temperature within the RTO, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
3. The permittee shall maintain a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The emissions unit shall be equipped with devices to monitor and record the amount of isobutane used each hour.
5. The permittee shall maintain monthly records of the following information:
  - a. The isobutane usage rate for each month.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the isobutane usage rate. Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.
  - c. The amount of polyethylene foam produced (tons).
  - d. The operating hours for each month.
  - e. The OC emission rate (tons or pounds).

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- f. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rate (tons). Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative OC emission rate for each calendar month.
6. The permittee shall maintain and operate monitoring device(s) which continuously and simultaneously measure the differential pressure between the inside and outside of the permanent total enclosure. The monitoring device(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall maintain records of all three-hour blocks of time which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a three-hour average.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which any photochemically reactive materials were employed.
2. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the RTO does not comply with the temperature limitation specified above.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month isobutane usage limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative isobutane usage levels. These reports are due by the date described in the General Terms and Conditions of this permit.
4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month OC emission limitation. These reports are due by the date described in the General Terms and Conditions of this permit.
5. The permittee shall submit pressure differential deviation (excursion) reports that identify all three-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a three-hour average.

**V. Testing Requirements**

1. Emission Limitation: 5.7 tons OC/rolling 12 month period

Emissions Unit ID: P001

Applicable Compliance Method:

Compliance with this limit shall be assumed provided that isobutane usage rate of this emissions unit does not exceed 394.2 tons per rolling 12-month period, the enclosures capture a minimum of 47% of the isobutane used and the air pollution control system (i.e. the RTO) removes at least 97% of the OC emissions at all times.

The permittee shall determine monthly its OC emission rate by the following equation:

$$E = IUR \times 0.47 \times (1-RE)$$

where,

E = OC emission rate ton/month

IUR = monthly isobutane usage rate (tons)

0.47 = percent, by weight, of isobutane used that is captured by the enclosures at the extrusion line, determined by testing conducted on April 3, 1998.

RE = OC removal determined by the most recent compliance test on the air pollution control system.

The permittee shall determine the rolling 12-month OC emission rate by summing monthly OC emission rates for each 12-month period.

2. Emission Limitation: 97% control efficiency for OC emissions by weight

Applicable compliance method: The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. If required by the Ohio EPA, U.S. EPA Method 25 or 25A shall be used to determine inlet and outlet OC concentrations.

3. Capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with U.S. EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. (The Ohio EPA will consider this request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of alternative if such approval does not contravene any other applicable requirement).
4. Emission Limitation: 2.03 lb/hr OC

**Issued: To be entered upon final issuance**

Applicable Compliance Method: Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 25 or 25A, if required by the Ohio EPA.

5. Emissions Limitation: 0.14 lb/MMBTU heat input for NO<sub>x</sub>

Applicable Compliance Method: Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 7 or 7E, if required by the Ohio EPA.

6. Emissions Limitation: 0.85 tons/year NO<sub>x</sub>

Applicable Compliance Method: Compliance shall be demonstrated by the following equation:

$$E = ER \times MHI \times OH \times (1 \text{ ton}/2000 \text{ lb})$$

E = NO<sub>x</sub> emission rate (tons/yr)

ER = allowable emissions rate of 0.14 lb/MMBTU heat input

MHI = maximum heat input (MMBTU/hr)

OH = maximum operating hours (8760 hours /yr)

7. Emission testing requirements

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 2 months after issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the capture efficiency limitation and destruction efficiency limitation for OC of 47% and the 97% respectively.
- c. The following test methods shall be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for OC:

Method 25 of 40 CFR, Part 60 Appendix A, if the VOC concentrations as carbon in the outlet are greater than 50 ppm; or

Method 25A of 40 CFR, Part 60 Appendix A, if the VOC concentrations as carbon in the outlet are less than 50ppm; and

Method 204 of 40 CFR Part 51 Appendix M.

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test shall be conducted with P002 (line #2) also in operation. The test shall be conducted with both emissions units operating at or near their total, maximum capacity.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The requirements of this permit shall entirely replace the requirements of PTI 02-10279, issued October 23, 1996, and modified on July 15, 1998.

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**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
P001 - Polyethylene foam extruder #1 with a regenerative thermal oxidizer		

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (P001) 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). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isobutane

TLV (mg/m3): 1900

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Maximum Hourly Emission Rate (lbs/hr): 2.03 (P001)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6442.9\*

MAGLC (ug/m3): 45,200

\*Based on total emissions from P001-P004

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (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.

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.);

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- 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.

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Emissions Unit ID: P001

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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 - Polyethylene foam extruder #2 with a regenerative thermal oxidizer	OAC rule 3745-31-05 (D)	OC: 3.5 tons per rolling 12-month period , see A.I.2.b through A.I.2.d.
	OAC rule 3745-31-05(A)(3)	OC:2.03 lbs/hr
	OAC 3745-21-07(G)(2)	exempt, see A.I.2.a

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall not employ organic liquids which are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).
- 2.b This emissions unit shall be vented to the regenerative thermal oxidizer (RTO) at all times.
- 2.c The permittee shall employ a control system on this emissions unit such that a minimum of forty-seven percent (47%) of the organic compound that is used as a blowing agent is captured by weight and that the RTO has a minimum destruction efficiency by weight of ninety-seven percent (97%) of the OC emissions vented to it.
- 2.d The emissions unit shall be equipped with enclosures that will meet the criteria for a permanent total enclosure as specified in 40 CFR Part 51, Appendix M, Method 204.

**II. Operational Restrictions**

1. Isobutane usage shall not exceed 144 pounds per hour.

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2. The maximum annual isobutane usage rate for this emissions unit shall not exceed 236.5 tons, based upon a rolling, 12-month summation of the isobutane usage rates.

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

<u>Month(s)</u>	<u>Maximum Allowable Isobutane Usage (tons)</u>
1	19.7
1-2	39.4
1-3	59.1
1-4	78.8
1-5	98.5
1-6	118.2
1-7	137.9
1-8	157.6
1-9	177.3
1-10	197.0
1-11	216.7
1-12	236.5

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

3. The average combustion temperature within the RTO, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. This temperature limit may be modified based on the results of future emissions tests that demonstrate compliance.
4. The permittee shall employ isobutane as a blowing/foaming agent. Prior to the use of other blowing/foaming agents, the permittee shall notify the Ohio EPA, Northeast District Office, in writing.
5. The permanent total enclosure shall be maintained under negative pressure, at a minimum pressure differential that is not less than 0.007 inch of water, as a three-hour average, whenever the emissions unit is in operation.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall keep the following records on all materials used in this emissions unit:
  - a. The identification of the chemical compound and its physical state.
  - b. For any liquid organic materials, whether or not the material is a photochemically reactive material, as defined in OAC rule 3745-21-01(C)(5).
2. The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall record the temperature on a continuous basis.

The permittee shall record all 3-hour block of time during which the average combustion temperature within the RTO, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.
3. The permittee shall maintain a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
4. The emissions unit shall be equipped with devices to monitor and record the amount of isobutane used each hour.
5. The permittee shall maintain monthly records of the following information:
  - a. The isobutane usage rate for each month.
  - b. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the isobutane usage rate. Also, during the first 12 calendar months of operation following the issuance of this permit, the permittee shall record the cumulative operating hours for each calendar month.
  - c. The amount of polyethylene foam produced (tons).
  - d. The operating hours for each month.
  - e. The OC emission rate (tons or pounds).
  - f. Beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the OC emission rate (tons). Also, during the first 12 calendar months of operation following the issuance of this permit, the

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permittee shall record the cumulative OC emission rate for each calendar month

6. The permittee shall maintain and operate monitoring device(s) which continuously and simultaneously measure the differential pressure between the inside and outside of the permanent total enclosure. The monitoring device(s) shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s).

The permittee shall maintain records of all three-hour blocks of time which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a three-hour average.

**IV. Reporting Requirements**

1. The permittee shall submit deviation (excursion) reports which include an identification of each day during which any photochemically reactive materials were employed.
2. The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the RTO does not comply with the temperature limitation specified above.
3. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month isobutane usage limitation and, for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative isobutane usage levels. These reports are due by the date described in the General Terms and Conditions of this permit.
4. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month OC emission limitation. These reports are due by the date described in the General Terms and Conditions of this permit.
5. The permittee shall submit pressure differential deviation (excursion) reports that identify all three-hour blocks of time during which the permanent total enclosure was not maintained at or above the minimum pressure differential of 0.007 inch of water, as a three-hour average.

**V. Testing Requirements**

1. **Emission Limitation:** 3.5 tons OC/rolling 12 month period

**Applicable Compliance Method:** Compliance with this limit shall be assumed provided that isobutane usage rate of this emissions unit does not exceed 236.5 tons per rolling 12-month period, the enclosures capture a minimum of 47% of the isobutane used and the air pollution

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control system removes at least 97% of the OC emissions at all times.

The permittee shall determine monthly its OC emission rate by the following equation:

$$E = IUR \times 0.47 \times (1-RE)$$

where,

E = OC emission rate ton/month

IUR = monthly isobutane usage rate (tons)

0.47 = percent, by weight, of isobutane used that is captured by the enclosures at the extrusion line, determined by testing conducted on April 3, 1998.

RE = OC removal determined by the most recent compliance test on the air pollution control system.

The permittee shall determine the rolling 12-month VOC emission rate by summing monthly VOC emission rates for each 12-month period.

2. **Emission Limitation:** 97% control efficiency for OC emissions by weight

**Applicable compliance method:** The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. If required by the Ohio EPA, U.S. EPA Method 25 or 25A shall be used to determine inlet and outlet OC concentrations.

3. Capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with U.S. EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. ( The Ohio EPA will consider this request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of alternative if such approval does not contravene any other applicable requirement).

4. **Emission Limitation:** 2.03 lb/hr OC

**Applicable Compliance Method:** Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 25 or 25A.

5. **Emission testing requirements**

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The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 2 months after issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the capture efficiency limitation and destruction efficiency limitation for OC of 47% and the 97% respectively.
- c. The following test methods shall be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for OC:  
  
Method 25 of 40 CFR, Part 60 Appendix A, if the VOC concentrations as carbon in the outlet are greater than 50 ppm; or  
  
Method 25A of 40 CFR, Part 60 Appendix A, if the VOC concentrations as carbon in the outlet are less than 50ppm; and  
  
Method 204 of 40 CFR Part 51 Appendix M.  
  
Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test shall be conducted with P001 (line #1) also in operation. The test shall be conducted with both emissions units operating at or near their total, maximum capacity.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by

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the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The requirements of this permit shall entirely replace the requirements of PTI 02-10279, issued October 23, 1996, and modified on July 15, 1998.

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**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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 - Polyethylene foam extruder #2 with a regenerative thermal oxidizer		

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permit to install for this emissions unit (P002) 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). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isobutane

TLV (mg/m3): 1900

Maximum Hourly Emission Rate (lbs/hr):2.03 (P002)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6442.9\*

MAGLC (ug/m3): 45,200

\*Based on total emissions from P001-P004

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.

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:"

- d. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- e. documentation of its evaluation and determination that the changed emissions unit still

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satisfies the "Air Toxic Policy"; and

- f. 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.

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**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**Issued: To be entered upon final issuance****Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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 - Scrap polyethylene foam grinder and extruder vented to a regenerative thermal oxidizer	OAC rule 3745-31-05 (D)  OAC rule 3745-31-05(A)(3)	OC: 6.7 tons per rolling 12-month period, see A.I.2.a through A.I.2.c.  OC: 1.53 pounds per hour

**2. Additional Terms and Conditions**

- 2.a This emissions unit shall be vented to the regenerative thermal oxidizer (RTO) at all times.
- 2.b The permittee shall employ a control system on this emissions unit such that the capture and control equipment provide not less than eighty-seven percent (87%) reduction, by weight, in the overall VOC emissions and such that the RTO has an efficiency of not less than ninety-seven percent (97%), by weight, for the VOC emissions vented to it.

**II. Operational Restrictions**

1. The average combustion temperature within the RTO, for any 3-hour block of time when the emissions unit is in operation, shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance. This temperature limit may be modified based on the results of future emissions tests that demonstrate compliance.

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall keep records on the quantity of polyethylene foam processed through the

Emissions Unit ID: P003

scrap grinder and extruder on a monthly basis(lbs).

- The permittee shall operate and maintain a continuous temperature monitor which measures the gas temperature within the RTO when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring device shall be capable of accurately measuring the desired parameter. The temperature monitor shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall record the temperature on a continuous basis.

The permittee shall record all 3-hour block of time during which the average combustion temperature within the RTO, when the emissions unit was in operation, was more than 50 degrees Fahrenheit below the average temperature during the most recent emission test that demonstrated the emissions unit was in compliance.

- The permittee shall maintain a log or record of operating time for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

#### IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports which identify all 3-hour blocks of time during which the average combustion temperature within the RTO does not comply with the temperature limitation specified above.
- The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month OC emission limitation. These reports are due by the date described in the General Terms and Conditions of this permit.

#### V. Testing Requirements

- Emission Limitation:** 6.7 tons OC/rolling 12 month period

**Applicable Compliance Method:** Compliance with this limit shall be assumed provided that the enclosures capture a minimum of 90% of the isobutane used and the air pollution control system removes at least 97% of the OC emissions at all times.

The permittee shall determine monthly its OC emission rate by the following equation:

$$E = FP \times (\% \text{ isobutane in scrap foam}) \times [(0.90 \times (1 - RE)) + (1 - .9)]$$

where,

E = OC emission rate (tons/month)

FP = scrap foam processed (tons/month)

0.90 = percent, by weight, of isobutane used that is captured by the enclosures at the extrusion

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line, determined by testing conducted on April 3, 1998.

RE = OC removal determined by the most recent compliance test on the air pollution control system.

The permittee shall determine the rolling 12-month VOC emission rate by summing monthly VOC emission rates for each 12-month period.

2. **Emission Limitation:** 97% control efficiency for OC emissions by weight

**Applicable compliance method:** The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases. If required by the Ohio EPA, U.S. EPA Method 25 or 25A shall be used to determine inlet and outlet OC concentrations.

3. Capture efficiency shall be determined using Methods 204 through 204F, as specified in 40 CFR Part 51, Appendix M, or the permittee may request to use an alternative method or procedure for the determination of capture efficiency in accordance with U.S. EPA's "Guidelines for Determining Capture Efficiency," dated January 9, 1995. ( The Ohio EPA will consider this request, including an evaluation of the applicability, necessity, and validity of the alternative, and may approve the use of alternative if such approval does not contravene any other applicable requirement).

4. **Emission Limitation:** 1.53 lbs/hr OC

**Applicable Compliance Method:** Compliance shall be demonstrated by using U.S. EPA reference methods 1-4 and 25 or 25A.

5. **Emission testing requirements**

The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 2 months after issuance of this permit.
- b. The emission testing shall be conducted to demonstrate compliance with the overall capture and control efficiency limitation and destruction efficiency limitation for OC of 87% and the 97% respectively.

- c. The following test methods shall be employed to demonstrate compliance with the capture efficiency and control efficiency limitations for OC:
- Method 25 of 40 CFR, Part 60 Appendix A, if the VOC concentrations as carbon in the outlet are greater than 50 ppm; or
- Method 25A of 40 CFR, Part 60 Appendix A, if the VOC concentrations as carbon in the outlet are less than 50ppm; and
- Method 204 of 40 CFR Part 51 Appendix M.
- Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test shall be conducted with the emissions unit operating at or near its maximum capacity.
- e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Northeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA Northeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Northeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Northeast District Office.

## **VI. Miscellaneous Requirements**

1. The requirements of this permit shall entirely replace the requirements of PTI 02-10279, issued October 23, 1996, and modified on July 15, 1998.

**Issued: To be entered upon final issuance**

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(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 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 - Scrap polyethylene foam grinder and extruder vented to a regenerative thermal oxidizer		

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permit to install for this emissions unit (P003) 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). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isobutane

TLV (mg/m3): 1900

Maximum Hourly Emission Rate (lbs/hr): 1.53 (P003)

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6442.9\*

MAGLC (ug/m3): 45,200

\*Based on total emissions from P001-P004

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (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.

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:"

- d. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- e. documentation of its evaluation and determination that the changed emissions unit still

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satisfies the "Air Toxic Policy"; and

- f. 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.

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Emissions Unit ID: P003

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
P004 - Polyethylene foam warehouse	OAC rule 3745-31-05 (D)	OC: 213.0 tons per rolling 12-month period
	OAC rule 3745-31-05(A)(3)	OC: 1167.1 pounds per day

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

1. The permittee shall maintain the following monthly records:
  - a. The total amount of isobutane used in the two extrusion lines P001 and P002(tons);
  - b. The amount of polyethylene foam processed through the scrap grinder/extruder (P003) monthly (tons);
  - c. The amount of isobutane retained in the finished polyethylene foam product (percent by weight), based on an analysis that shall be conducted on the finished polyethylene foam product each month for retained isobutane;

Emissions Unit ID: P004

- d. The amount of "good" foam shipped from the warehouse (tons);
- e. The amount of OC emitted from the warehouse (tons);
- f. The number of days per month foam was in the warehouse; and
- g. The average daily OC emission rate for the month, in pounds ( e/f x 2000 lbs/ton)

#### IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all exceedances of the rolling, 12-month OC emission limitation. These reports are due by the date described in the General Terms and Conditions of this permit.
2. The permittee shall submit deviation (excursion) reports which identify all exceedances of the daily average OC emission limitation. These reports are due by the date described in the General Terms and Conditions of this permit.

#### V. Testing Requirements

1. **Emission Limitation:** 213.0 tons OC/rolling 12 month period

**Applicable Compliance Method:** The permittee shall determine monthly its OC emission rate by the following equation:

$$E = \text{TMIU} - 0.47(\text{TMIU}) - (\text{TMFG})(\%IF) - (\%IRF \times \text{GFP})$$

where,

E = OC emissions (tons/month)

TMIU = total monthly isobutane usage for P001 and P002 (tons)

0.47 = percent, by weight, of isobutane used that is captured by the enclosures at the extrusion lines (P001 and P002), determined by testing conducted on April 3, 1998.

TMFG = total monthly foam processed by grinder unit P003 (tons)

IF = percent of isobutane in foam processed through scrap grinder (%)

IRF = percent of isobutane retained in foam product (%)

GFP = "good" foam produced (tons/month)

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Emissions Unit ID: P004

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**VI. Miscellaneous Requirements**

1. The requirements of this permit shall entirely replace the requirements of PTI 02-10279, issued October 23, 1996, and modified on July 15, 1998.

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**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

- 1. The specific operations(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 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>
P004 - Polyethylene foam warehouse		

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

**III. Monitoring and/or Recordkeeping Requirements**

- 1. The permit to install for this emissions unit (P004) 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). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: isobutane

TLV (mg/m3): 1900

Maximum Hourly Emission Rate (lbs/hr): 49.6 (P004)

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Emissions Unit ID: P004

**Issued: To be entered upon final issuance**

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6442.9\*

MAGLC (ug/m3): 45,200

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\*Based on total emissions from P001-P004

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (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.

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:"

- d. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- e. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

**Cantar/Polyair Corp**  
**PTI Application: 02-12012**  
**Issued**

**Facility ID: 0250110960**

Emissions Unit ID: P004

- f. 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.

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**PTI A**

**Issued: To be entered upon final issuance**

Emissions Unit ID: P004

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None

**NEW SOURCE REVIEW FORM B**

PTI Number: 02-13013 Facility ID: 0250110960

FACILITY NAME Cantar/Polyair Corp

FACILITY DESCRIPTION Polyurethane foam manufacturing plant. CITY/TWP Youngstown

SIC CODE 3086 SCC CODE 3-01-018-14 EMISSIONS UNIT ID P001

EMISSIONS UNIT DESCRIPTION Polyethylene foam extruder #1 with a regenerative thermal oxidizer

DATE INSTALLED 11/96

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	attainment	1.3	4.8	1.7	5.7
Nitrogen Oxides	attainment			0.14 lb/MMBTU	0.85
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? \_\_\_\_\_ NESHAP? \_\_\_\_\_ PSD? \_\_\_\_\_ OFFSET POLICY? \_\_\_\_\_

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**Enter Determination:** Use of a permanent total enclosure and thermal incinerator to achieve 97% overall removal of OC/VOC emissions from the extruder; production limitations

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ \_\_\_\_\_

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES \_\_\_\_\_ NO \_\_\_\_\_

IDENTIFY THE AIR CONTAMINANTS: isobutane

**NEW SOURCE REVIEW FORM B**

PTI Number: 02-13013 Facility ID: 0250110960

FACILITY NAME Cantar/Polyair Corp

FACILITY DESCRIPTION Polvurethane foam manufacturing plant. CITY/TWP Youngstown

Emissions Unit ID: P004

SIC CODE 3086 SCC CODE 3-01-018-14 EMISSIONS UNIT ID P002

EMISSIONS UNIT DESCRIPTION Polyethylene foam extruder #2 with a regenerative thermal oxidizer

DATE INSTALLED 11/96

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	attainment	0.8	2.9	2.03	3.5
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**Enter Determination** Use of a permanent total enclosure and thermal incinerator to achieve 97% overall removal of OC/VOC emissions from the extruder; production limitations

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? x YES        NO

IDENTIFY THE AIR CONTAMINANTS: isobutane

**NEW SC**

PTI Num

FACILITY

Emissions Unit ID: P004

FACILITY DESCRIPTION Polyurethane foam manufacturing plant. CITY/TWP Youngstown

SIC CODE 3086 SCC CODE 3-01-018-14 EMISSIONS UNIT ID P003

EMISSIONS UNIT DESCRIPTION Scrap polyethylene foam grinder and extruder vented to a regenerative thermal oxidizer

DATE INSTALLED 11/96

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	attainment	<1.53	5.3	1.53	6.7
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NPSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

Enter Determination Use of enclosures and thermal incinerator to achieve 90% capture and 97% destruction of organic compound emissions.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? Yes  
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES NO

IDENTIFY THE AIR CONTAMINANTS: isobutane

**NEW SOURCE REVIEW FORM B**

PTI Number: 02-13013 Facility ID: 0250110960  
 FACILITY NAME Cantar/Polyair Corp  
 FACILITY DESCRIPTION Polvurethane foam manufacturing plant. CITY/TWP Youngstown  
 Emissions Unit ID: P004  
 SIC CODE 3086 SCC CODE 3-01-018-14 EMISSIONS UNIT ID P004  
 EMISSIONS UNIT DESCRIPTION Polyethylene foam warehouse  
 DATE INSTALLED 11/96

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM <sub>10</sub>					
Sulfur Dioxide					
Organic Compounds	attainment	980.8 lbs/dy	149.3	1167.1 lbs/dy	213.0
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

**WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?**

**Enter Determination** No controls. OC emissions limited to 1167.1 lbs/day and 213 tons/yr

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? yes  
 OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

**TOXIC AIR CONTAMINANTS**

Ohio EPA's air toxics policy applies to containinants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED\*? X YES        NO

IDENTIFY THE AIR CONTAMINANTS: isobutane

**Ohio EPA Permit to Install Information Form** Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Pam McGraner**, AQM&P, DAPC, Central Office, and electronic files to **airpti@epa.state.oh.us**

*Please fill out the following. If the checkbox does not work, replace it with an 'X'*

	Electronic	<u>Additional information File Name Convention (your PTI # plus this letter)</u>	Hard Copy	None
<u>Calculations (required)</u>	<input type="checkbox"/>	000000c.wpd	<input checked="" type="checkbox"/>	
<u>Modeling form/results</u>	<input type="checkbox"/>	000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<u>PTI Application (complete or partial)*</u>	<input type="checkbox"/>	000000a.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>BAT Study</u>	<input type="checkbox"/>	000000b.wpd	<input type="checkbox"/>	<input type="checkbox"/>
<u>Other/misc.</u>	<input type="checkbox"/>	000000t.wpd	<input type="checkbox"/>	<input type="checkbox"/>

\* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

**NEW SOURCE REVIEW FORM B**

PTI Number: 02-13013

Facility ID: 0250110960

FACILITY NAME Cantar/Polyair Corp

FACILITY DESCRIPTION Polvurethane foam manufacturing plant. CITY/TWP Youngstown

Emissions Unit ID: P004

Please complete (see comment bubble to the left for additional instructions):

**NSR Discussion**

This PTI allows for hourly increase in OC emissions for P001 and P002. Overall facility emissions will not increase.

Synthetic minor to limit production to keep VOC/OC emissions below 250 tons per year.

This is a chapter 31 modification and this PTI replaces PTI 02-10279, issued 10/23/96. The original BAT determination required P001-P003 to be controlled by a thermal incinerator. BAT for P004, the warehouse, was determined to be no controls. Isobutane is not a HAP.

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

 **Synthetic Minor Determination and/or**  **Netting Determination**

Permit To Install ENTER PTI NUMBER HERE

**A. Source Description**

This source, Cantar/Polyair Corporation facility, is located at 1100 Performance Place in Youngstown, Ohio. The facility has two polyethylene foam extruders (P001-P002), scrap polyethylene foam grinder and extruder unit (P003), and polyethylene foam warehouse (P004).

**B. Facility Emissions and Attainment Status**

The Cantar/Polyair Corporation facility is located in Mahoning County. Mahoning County is attainment for particulate, sulfur dioxide, carbon monoxide, ozone, lead, and oxides of nitrogen. This facility has a potential to emit for organic compounds of 229 tons per year. The facility emissions of other air contaminants are not significant. The emissions limits established by the original PTI # 02-0279, issued on October 23, 1996, for this facility were as follows: for P001, 3.2 tons per year of OC, for P002, 1.9 tons per year OC, for P003, 6.7 tons per year OC, and for P004, 217.2 tons OC per year. The permit to install required emissions units P001, P002 and P003 to be controlled by a thermal oxidizer.

**C. Source Emissions**

Emissions from the two polyethylene foam extruders (P001-P002), scrap polyethylene grinder and extruder unit (P003), and polyethylene foam warehouse (P004) consist of only one OC, isobutane. The permittee has requested that the maximum hourly isobutane usage rate for P001 be increased from 90 pounds per hour to 144 pounds per hour. The permittee has requested that the maximum hourly isobutane usage rate for P002 be increased from 54 pounds per hour to 144 pounds per hour. After this change, at 8760 hours of operation per year, and even including the use of the thermal incinerator, the potential to emit of VOC would be greater than 250 tons per year. This facility would then be considered a major facility under the federal PSD rules.

The facility has agreed to limit its annual isobutane usage in emissions unit P001 to 394.2 tons per any 12-month period and to limit isobutane usage in emissions unit P002 to 236.5 tons per any 12-month period. With the continued use of the thermal incinerator, this will restrict VOC emissions from the facility to 229 tons per year. This synthetic minor permit requires the permittee to maintain records of isobutane usage and to submit reports concerning exceedances of isobutane usage. In addition, monitoring and record keeping will be required on the thermal incinerator which controls VOC emissions from P001, P002 and P003.

56 **NEW SOURCE REVIEW FORM B**

PTI Number: 02-13013

Facility ID: 0250110960

FACILITY NAME Cantar/Polyair Corp

FACILITY DESCRIPTION Polvurethane foam manufacturing plant. CITY/TWP Youngstown

Emissions Unit ID: P004

**D. Conclusion**

Emissions unit P001-P004 will have each have a short term emissions limits for OC. The permittee will be required to record the monthly isobutane usage rate and a 12- month summation of the isobutane usage rate in emissions units P001 and P002. With these restrictions and with the continued use of the thermal incinerator, the potential to emit from the facility will be 229 tons per. This will keep the facility from becoming a major facility as defined in 40 CFR Part 52.

**PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:**

NONE

**Please complete:**

**SUMMARY (for informational purposes only)  
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	228.9
NOx	0.85

**5 NEW SOURCE REVIEW FORM B**

PTI Number: 02-13013

Facility ID: 0250110960

FACILITY NAME Cantar/Polyair Corp

FACILITY DESCRIPTION Polvurethane foam manufacturing plant.

CITY/TWP Youngstown

Emissions Unit ID: P004