State of Ohio Environmental Protection Agency

Street Address:
Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

02/23/01

CERTIFIED MAIL

RE: Preliminary Proposed Title V
Chapter 3745-77 permit

02-50-11-0960
CANTAR/POLYAIR CORP.
BOB HOVANES
1100 PERFORMANCE PLACE
YOUNGSTOWN, OH 44502

Dear BOB HOVANES:

Enclosed is the Ohio EPA Preliminary Proposed Title V permit that was issued in draft form on 11/30/00. The comment period has ended. We are now ready to submit this permit to USEPA for approval.

We are submitting this for your review and comment. If you do not agree with the Preliminary Proposed Title V permit as written or with agreed-upon changes, then you have the opportunity to schedule a meeting with us to discuss your concerns.

Please contact Jim Orlemann, Engineering Section Manager, 614-644-3592, or you can telefax your request to (614) 644-3681, within fourteen (14) days from receipt of this letter if a meeting is desired. If a request for a meeting is not received within fourteen (14) days of receipt of this letter, we will forward this proposed permit (as written, or with agreed-upon changes) to USEPA for approval.

Very truly yours,

Thomas G. Rigo

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

cc: Northeast District Office
Becky Castle, DAPC PMU

Ohio EPA
State of Ohio Environmental Protection Agency

PRELIMINARY PROPOSED TITLE V PERMIT

Date: 02/23/01
Effective Date: **To be entered upon final issuance**
Expiration Date: **To be entered upon final issuance**

This document constitutes issuance to:

CANTAR/POLYAIR CORP.
1100 PERFORMANCE PLACE
YOUNGSTOWN, OH 44502

of a Title V permit for Facility ID: 02-50-11-0960

Emissions Unit ID (Company ID)/
Emissions Unit Activity Description:
P001 (FOAM EXTRUDER 1)
FOAM MANUFACTURING PROCESS - EXTRUDER 1.

P002 (FOAM EXTRUDER 2)
FOAM MANUFACTURING PROCESS - EXTRUDER 2.

P003 (SCRAP GRINDER/EXTRUDER)
FOAM MANUFACTURING PROCESS - RECYCLING SYSTEM.

P004 (FOAM WAREHOUSE)
FOAM STORAGE AREA.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-04(A) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330) 425-9171

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

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 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 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 <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, 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 promptly made to the appropriate Ohio EPA District Office or local air agency. These quarterly written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations except malfunctions, which shall be reported in accordance with OAC rule 3745-15-06. 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. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.) See B.8 below if no deviations occurred during the quarter.
iii. Written reports, which identify any deviations from the federally enforceable <u>monitoring, recordkeeping, and reporting requirements</u> 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. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i)

and (ii) pertaining to the reporting of any deviations related to the monitoring, recordkeeping, and reporting requirements. 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 submitted pursuant to OAC rule 3745-15-06 shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of deviations caused by malfunctions or upsets.

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

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.

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than

the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

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

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
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.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the appropriate Ohio EPA District Office or local air agency in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.
(b) The permittee's current compliance status.
(c) Whether compliance was continuous or intermittent.
(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed

therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.

16. Off Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition;

b. The permittee provides contemporaneous written notice of the change to the director and the administrator, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change;

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F);

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes; and

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(For further clarification, the permittee can refer to Engineering Guide #63 that is available in their STARSHIP software package.)

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

18. Insignificant Activity

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

B. State Only Enforceable Section

1. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

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 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 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. Records Retention Requirements

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.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

6. 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.

7. 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.

8. 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.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

None

B. State Only Enforceable Section

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FOAM EXTRUDER 1 (P001)

Activity Description: FOAM MANUFACTURING PROCESS - EXTRUDER 1.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Polyethylene foam extruder #1 with a regenerative thermal oxidizer	OAC rule 3745-31-05(D) PTI # 02-13013	OC: 5.7 tons per rolling 12-month period , see A.I.2.b through A.I.2.e OC: 2.03 pounds per hour NOx: 0.14 pound per MMBTU heat input, 0.85 ton per year
	OAC rule 3745-21-07(G)(2)	exempt, see A.I.2.a

2. Additional Terms and Conditions

2.a This emissions unit shall not employ any liquid organic materials that are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

2.b All VOC emissions from this emissions unit shall be vented to the regenerative thermal oxidizer (RTO) at all times.

2.c The permittee shall employ a control system that captures all the organic compounds released in the blowing process. In addition, the RTO shall have a minimum destruction efficiency of ninety-seven percent (97%), by weight, of the OC emissions vented to it.

2.d The permittee shall ensure that a minimum of 47%, by weight, of the blowing agent is released within the total enclosure process and that not more than of 53%, by weight, of the blowing agent is retained in the product.

2.e This emissions unit (P001) shall be equipped with enclosures that 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.

II. Operational Restrictions (continued)

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 the permit to install (02-13013), the permittee shall not exceed the isobutane usage levels specified in the following table:

Months(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	296.0
1-10	328.9
1-11	361.8
1-12	394.2

After the first 12 calendar months of operation following the issuance of the permit to install (02-13013), compliance with the annual maximum allowable isobutane usage 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.

4. The permittee shall only employ isobutane as a blowing/foaming agent. Prior to the use of other blowing/foaming agents, the permittee shall obtain a modification of the PTI.

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.

6. This emissions unit shall be totally enclosed such that all the OC emissions are captured for venting to the thermal incinerator. Compliance with the following criteria, as specified by USEPA Method 204, shall be met by the permittee:

a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;

b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;

c. the average facial velocity (FV) of air through all the NDO's shall be at least 3,600 m/hr (200 fpm);

d. the differential pressure between the inside and outside of the enclosure shall not be less than 0.007 inch of water;

e. the direction of air flow through all NDO's shall be into the enclosure;

f. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and

g. all OC emissions from the coating line must be captured and contained for discharge to the thermal incinerator.

III. Monitoring and/or Record Keeping 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 blocks 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 permit to install 02-13013, the rolling, 12-month summation of the isobutane usage rates.

c. During the first 12 calendar months of operation following the issuance of permit to install 02-13013, the cumulative isobutane usage rate for each calendar month.

d. The amount of polyethylene foam produced (tons).

e. The operating hours for each month.

f. The OC emissions rate (tons and pounds)(see A.V.2).

g. The average hourly OC emission rate (pounds) (f/e).

h. Beginning after the first 12 calendar months of operation following the issuance of permit to install 02-13013, the rolling, 12-month summation of the OC emission rates (tons).

i. During the first 12 calendar months of operation following the issuance of permit to install 02-13013, the cumulative OC emission rate for each calendar month (tons).

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 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which any photochemically reactive material was employed.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified above.

3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly isobutane usage limitation.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month isobutane usage limitation and, for the first 12 calendar months of operation following the issuance of permit to install 02-13013, all exceedances of the maximum allowable cumulative isobutane usage levels.

5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month OC emission limitation.

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

1.a The emissions testing shall be conducted within 2 months after issuance of this permit and within six months prior to permit expiration.

1.b The emission testing shall be conducted to demonstrate compliance with the limitation concerning the release of the blowing agent (47%) and the destruction efficiency limitation for OC of 97%.

1.c 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.

1.d 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).

1.e The test shall be conducted with P002 (line #2) and scrap grinder/extruder (P003) also in operation. The test shall be conducted with both emissions units operating at or near their total, maximum capacities.

1.f 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).

1.g 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.

V. Testing Requirements (continued)

1.h 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.

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

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

E = (IUR) (0.47) (1-RE)

where,

E = OC emission rate (tons/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, as determined by testing conducted on April 3, 1998 (this percent by weight, may be replaced by the percent, by weight, value from the most recent compliance test).

RE = destruction efficiency for the RTO, determined by the most recent compliance test for the RTO.

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

3. Emission Limitation:
2.03 pounds per hour OC

Applicable Compliance Method:
Compliance shall be based upon record keeping specified in section A.III.5 and emission testing specified in section A.V.1.

4. Emissions Limitation:
0.14 pound per MMBTU heat input for NOx

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

5. Emissions Limitation:
0.85 ton per year NOx

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

E = (ER) (MHI) (OH) (1 ton/2000 lb)

where,

E = NOx emission rate (tons/yr)

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

MHI = maximum heat input (MMBTU/hr)

OH = actual operating hours

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Polyethylene foam extruder #1 with a regenerative thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for emission units P001 - P004, combined, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' 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): 1.7 (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:

III. Monitoring and/or Record Keeping Requirements (continued)

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.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FOAM EXTRUDER 2 (P002)

Activity Description: FOAM MANUFACTURING PROCESS - EXTRUDER 2.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Polyethylene foam extruder #2 with a regenerative thermal oxidizer	OAC rule 3745-31-05(D) PTI # 02-13013	OC: 3.5 tons per rolling 12-month period , see A.I.2.b through A.I.2.e OC: 2.03 pounds per hour
	OAC rule 3745-21-07(G)(2)	exempt, see A.I.2.a

2. Additional Terms and Conditions

2.a This emissions unit shall not employ any liquid organic materials that are photochemically reactive materials, as defined in OAC rule 3745-21-01(C)(5).

2.b All VOC emissions from this emissions unit shall be vented to the regenerative thermal oxidizer (RTO) at all times.

2.c The permittee shall employ a control system that captures all the organic compounds released in the blowing process. In addition, the RTO shall have a minimum destruction efficiency of ninety-seven percent (97%), by weight, of the OC emissions vented to it.

2.d The permittee shall ensure that a minimum of 47%, by weight, of the blowing agent is released within the total enclosure process and that not more than of 53%, by weight, of the blowing agent is retained in the product.

2.e This emissions unit (P001) shall be equipped with enclosures that 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.

II. Operational Restrictions (continued)

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 the permit to install (02-13013), the permittee shall not exceed the isobutane usage levels specified in the following table:

Months(s)	Maximum Allowable Isobutane Usage (tons)
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 the permit to install (02-13013), compliance with the annual maximum allowable isobutane usage 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.

4. The permittee shall only employ isobutane as a blowing/foaming agent. Prior to the use of other blowing/foaming agents, the permittee shall obtain a modification of the PTI.

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.

6. This emissions unit shall be totally enclosed such that all the OC emissions are captured for venting to the thermal incinerator. Compliance with the following criteria, as specified by USEPA Method 204, shall be met by the permittee:

a. any natural draft opening (NDO) shall be at least four equivalent opening diameters from each OC emitting point unless otherwise specified by the Administrator;

b. the total area of all NDO's shall not exceed 5 percent of the surface area of the enclosure's four walls, floor and ceiling;

c. the average facial velocity (FV) of air through all the NDO's shall be at least 3,600 m/hr (200 fpm);

d. the differential pressure between the inside and outside of the enclosure shall not be less than 0.007 inch of water;

e. the direction of air flow through all NDO's shall be into the enclosure;

f. all access doors and windows whose areas are not included in section (b) and are not included in the calculations in section (c) shall be closed during routine operation of the process; and

g. all OC emissions from the coating line must be captured and contained for discharge to the thermal incinerator.

III. Monitoring and/or Record Keeping 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 blocks 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 permit to install 02-13013, the rolling, 12-month summation of the isobutane usage rates.

c. During the first 12 calendar months of operation following the issuance of permit to install 02-13013, the cumulative isobutane usage rate for each calendar month.

d. The amount of polyethylene foam produced (tons).

e. The operating hours for each month.

f. The OC emissions rate (tons and pounds)(see A.V.2).

g. The average hourly OC emission rate (pounds) (f/e).

h. Beginning after the first 12 calendar months of operation following the issuance of permit to install 02-13013, the rolling, 12-month summation of the OC emission rates (tons).

i. During the first 12 calendar months of operation following the issuance of permit to install 02-13013, the cumulative OC emission rate for each calendar month (tons).

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 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.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that include an identification of each day during which any photochemically reactive material was employed.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all 3-hour blocks of time during which the average combustion temperature within the RTO did not comply with the temperature limitation specified above.

3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the hourly isobutane usage limitation.

4. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month isobutane usage limitation and, for the first 12 calendar months of operation following the issuance of permit to install 02-13013, all exceedances of the maximum allowable cumulative isobutane usage levels.

5. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month OC emission limitation.

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

1.a The emissions testing shall be conducted within 2 months after issuance of this permit and within six months prior to permit expiration.

1.b The emission testing shall be conducted to demonstrate compliance with the limitation concerning the release of the blowing agent (47%) and the destruction efficiency limitation for OC of 97%.

1.c 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.

1.d 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).

1.e The test shall be conducted with P001 (line #1) and scrap grinder/extruder (P003) also in operation. The test shall be conducted with both emissions units operating at or near their total, maximum capacities.

1.f 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).

1.g 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.

V. Testing Requirements (continued)

1.h 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.

2. Emission Limitation:
3.5 tons OC/rolling 12-month period

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

E = (IUR) (0.47) (1-RE)

where,

E = OC emission rate (tons/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, as determined by testing conducted on April 3, 1998 (the percent, by weight, may be repalced by the percent, by weight, value from the most recent compliance test).

RE = destruction efficiency for the RTO, determined by the most recent compliance test for the RTO.

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

3. Emission Limitation:
2.03 pounds per hour OC

Applicable Compliance Method:
Compliance shall be based upon record keeping specified in section A.III.5 and emission testing specified in section A.V.1.

4. Emissions Limitation:
0.14 pound per MMBTU heat input for NOx

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

5. Emissions Limitation:
0.85 ton per year NOx

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

E = (ER) (MHI) (OH) (1 ton/2000 lb)

where,

E = NOx emission rate (tons/yr)

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

MHI = maximum heat input (MMBTU/hr)

OH = actual operating hours

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Polyethylene foam extruder #2 with a regenerative thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for emission units P001 - P004, combined, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' 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): 1.2 (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 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:

III. Monitoring and/or Record Keeping Requirements (continued)

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.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: SCRAP GRINDER/EXTRUDER (P003)

Activity Description: FOAM MANUFACTURING PROCESS - RECYCLING SYSTEM.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Scrap polyethylene foam grinder and extruder vented to a regenerative thermal oxidizer	OAC rule 3745-31-05 (D) PTI # 02-13013	OC: 6.7 tons per rolling 12-month period, see A.I.2.a through A.I.2.b OC: 1.53 pounds per hour

2. Additional Terms and Conditions

2.a The permittee shall employ a control system for this emissions unit such that the OC released in the grinding and extruding shall be captured using good engineering practices and vented to the RTO at all times.

2.b In addition, the RTO shall have a minimum destruction efficiency of ninety-seven percent (97%), by weight, of the OC 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 Record Keeping Requirements

1. The permittee shall keep monthly records of the quantity (tons) of polyethylene foam processed through the scrap grinder and extruder.

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 blocks 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.

III. Monitoring and/or Record Keeping Requirements (continued)

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 permittee shall record all 3-hour blocks 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.

5. The permittee shall maintain monthly records of the following information:

a. The amount of scrap polyethylene foam produced (tons).

b. The operating hours for each month of the scrap grinder/extruder.

c. The OC emissions rate (tons and pounds)(see A.V.2).

d. The average hourly OC emission rate (pounds) (b/c).

e. The OC emissions rate for the rolling, 12-month period (tons).

IV. Reporting Requirements

1. The permittee shall submit quarterly 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.

2. The permittee shall submit quarterly deviation (excursion) reports which identify all exceedances of the hourly OC emission limitation and/or the rolling, 12-month OC emission limitation.

V. Testing Requirements

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

1.a The emissions testing shall be conducted within 2 months after issuance of this permit and within six months prior to permit expiration.

1.b The emission testing shall be conducted to demonstrate compliance with the hourly emission limitation and the destruction efficiency limitation for OC of 97%.

1.c 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.

1.d 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).

1.e The test shall be conducted with P001 and P002 also in operation. The test shall be conducted with all emissions units operating at or near their total, maximum capacities.

1.f 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).

V. Testing Requirements (continued)

1.g 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.

1.h 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.

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

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

E = (FP) (weight fraction* of isobutane in scrap foam) [(0.90)(1-RE) + F]

where,

E = OC emission rate (tons/month)

FP = foam processed through the scrap grinder and extruder (tons/month)

0.90 = fraction, by weight, of isobutane captured by the enclosures at the extrusion line, as determined by testing conducted on April 3, 1998 (this percent by weight, may be replaced by the percent, by weight, value from the most recent compliance test).

RE = destruction efficiency for the RTO, as determined by the most recent compliance test on the air pollution control system.

F = fugitive emissions from scrap grinder/extruder = (1 - overall control efficiency)

* as determined using the procedures specified in A.V.1 of the terms and conditions for emissions unit P004

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

3. Emission Limitation:
1.53 pounds per hour OC

Applicable Compliance Method:
Compliance shall be based upon record keeping specified in section A.III.5 and emission testing specified in section A.V.1.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Scrap polyethylene foam grinder and extruder vented to a regenerative thermal oxidizer		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for emission units P001 - P004, combined, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' 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): 0.3 (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:

III. Monitoring and/or Record Keeping Requirements (continued)

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.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FOAM WAREHOUSE (P004)

Activity Description: FOAM STORAGE AREA.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
Polyethylene foam warehouse	OAC rule 3745-31-05 (D) PTI # 02-13013	OC: 213.0 tons per rolling 12-month period OC: 1167.1 pounds per day

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:

a. the 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)(tons);

c. the amount of isobutane retained in the finished polyethylene foam product (percent by weight), based on an analysis of the finished polyethylene foam product each month for retained isobutane (see isobutane retention procedure);

d. the amount of good foam product shipped from the warehouse (tons);

e. the amount of OC emitted from the warehouse (tons);

f. the number of days during the month foam product was stored in the warehouse;

g. the average daily OC emissions rate for the month, in pounds [(e/f)(2000 lb/ton)]; and

h. the rolling, 12-month summation of the OC emission rates (tons).

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month OC emission limitation.

2. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the daily OC emission rate.

V. Testing Requirements

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

Applicable Compliance Method: The permittee shall determine the monthly OC emissions from the warehouse by the following equation:

E = TMIU - 0.47(TMIU) - (TMFG) (IF) - (IRF x FS)

where,

E = OC emissions from warehouse (tons/month)

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

0.47 = fraction, by weight, of isobutane used that is required to be captured by the enclosures at the extrusion lines (P001-P002), as determined by testing conducted on April 3, 1998 (this percent by weight, may be replaced by the percent, by weight, value from the most recent compliance test).

TMFG = total monthly foam product processed by P003 (tons/month)

IF = weight fraction of isobutane in foam processed through P003

IRF = weight fraction of isobutane retained in "good" foam product (see isobutane retention procedure)

FS = "good" foam product shipped (tons/month)

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

V. Testing Requirements (continued)

The following is the procedure to determine the residual isobutane content, by weight, retained in the good foam product:

a. The good foam product samples shall be collected on a weekly basis from two different rolls of good foam product.

b. Two samples shall be taken from the two different rolls of good foam product as follows: unwind the good foam product to about half of its length. Cut 18" by 18" samples of material from the center of the good foam sheet and the edge of the good foam sheet.

c. No more than 30 minutes shall elapse from the time the good foam product is unrolled until the samples are weighed.

d. Each of the good foam product samples shall be labeled with a water proof marker.

e. Each sample of good foam product shall be weighed, using a minimum of six to eight grams of good foam product.

f. The samples of good foam product shall be placed into a 12" square sheet of aluminum foil.

g. Using the "Isobutane Retention Test Worksheet", the date tested, the initials of the person(s) testing the material, the foam size, the date the good foam product was made, and the location within the roll where the sample was taken shall be recorded.

h. The weight of each good foam sample shall be taken prior to heating. Each value shall be recorded on the "Isobutane Retention Test Worksheet", in column A.

i. The oven shall be preheated to 280 degrees F. The samples of good foam product shall be heated for 20 minutes at 280 degrees F.

j. The samples shall then be removed from the oven and allowed to cool for one minute, to prevent possible damage to the scale.

k. After the same samples have been heated and allowed to cool, each weight shall be recorded on the "Isobutane Retention Test Worksheet", in column B.

l. The percent isobutane retention may then be calculated by using the equation on the "Isobutane Retention Test Worksheet". The equation is as follows:

isobutane weight fraction = (A-B)/A

where;

A = initial weight of foil and foam

B = final weight of foil and foam

m. All old samples should then be discarded, so as not to cause confusion with later test samples.

2. Emission Limitation:
1167.1 pounds per day OC

Applicable Compliance Method:
The daily emission rate from the warehouse shall be determined by the record keeping in Section A.III.1.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for emission units P001 - P004, combined, was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions units' 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)

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:

III. Monitoring and/or Record Keeping Requirements (continued)

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.

2. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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