State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
MARION COUNTY

Street Address:
122 S. Front Street

Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329

Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 03-16236
Fac ID: 0351010180
DATE: 4/19/2005

SCA Packaging North America
Michael Poe
PO Box 448 800 Fifth Avenue
New Brighton, PA 150660448

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

CC: USEPA **NWDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 4/19/2005**
Terms and Conditions	**Effective Date: 4/19/2005**

FINAL PERMIT TO INSTALL 03-16236

Application Number:	03-16236
Facility ID:	0351010180
Permit Fee:	**$1300**
Name of Facility:	SCA Packaging North America
Person to Contact:	Michael Poe
Address:	PO Box 448 800 Fifth Avenue New Brighton, PA 150660448

Location of proposed air contaminant source(s) [emissions unit(s)]:
1836 Likens Road
Marion, **Ohio**

Description of proposed emissions unit(s):
reallocate emissions from EPS/ARCEL molding process.

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

Joseph P. Koncelik

Director

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 <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 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.9 below if no deviations occurred during the quarter.

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

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 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.

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 ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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.

12. 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.

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

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. 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.

5. 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 cannot meet the requirements of this permit 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 cannot meet the requirements of this permit or cannot meet applicable standards.

6. 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.

7. 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).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) 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.

9. 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

Pollutant	Tons Per Year
OC	200

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

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P005 - Pre-puff storage [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	OAC rule 3745-31-05(A)(3)	7.35 lbs organic compounds (OC)/hr (stack emissions) See A.I.2.a
	OAC rule 3745-31-05(C)	200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined (See A.I.2.b)
	OAC rule 3745-21-07(G)	None (See A.I.2.c)

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).

2.b Annual emissions of OC (stack and fugitive) shall not exceed 200 tons per rolling 12-month period from emission units P005, P801, P802, P803, and P804 combined . The emission limitation is based on OC content and bead throughput restrictions (See A.II.1 & A.II.2) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability. For purposes of federal enforceability, emission limitations on OC effectively restrict volatile organic compound (VOC) emissions.

2.c OAC rule 3745-21-07(G) is not applicable because this emissions unit does not use liquid organic materials.

II. Operational Restrictions

1. The OC content of the polymer beads employed in this emissions unit shall not exceed the following limits:

   a. EPS beads - 6.7%, in weight percent (as received)

   b. ARCEL beads - 13.0%, in weight percent (as received).

2. The maximum rolling 12-month bead throughput for this emissions unit is limited by the following equation:

$$\sum_{M=1}^{12} \sum_{n} \left(U_n \left(C_n/100 \right)(0.97) \right) \left(1\text{ton}/2000\text{ lbs} \right) \leq 200.0$$

   Where,

   M = the increment of the rolling 12-month period;
   n = individual bead lots processed during the period;
   U_n = total throughput of the individual beads in lot n, in pounds;
   C_n = OC content in weight % for each individual lot n
   0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)
   This emissions unit has been in operation for more than 12 months, and as such has records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit. Therefore, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information each month for this emissions unit:

   a. the company identification of each lot of polymer bead processed;

   b. the OC content, in weight percent, for each lot of polymer bead processed;

   c. the quantity, in tons, of each lot of polymer bead processed;

d. the calculated OC emissions from each lot of polymer bead processed, in tons, using the following equation:

$$E_n = \sum_n (U_n C_n/100)(0.97)(1\text{ton}/2000\text{ lbs})$$

Where,

En = OC emissions from individual bead lots processed;
n = individual bead lots processed during the period;
U_n = total throughput of the individual beads in lot n, in pounds;
C_n = OC content in weight % for each individual lot n
0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)

e. The total OC emissions rate of all beads processed, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + ... + E_n$$

Where:

E_M = Monthly OC emissions, in tons/month; and,
En = OC emissions from individual bead lots processed (A.III.1.d)

f. the rolling, 12-month OC emission rate calculated as follows:

$$E_T = E_{M1} + E_{M2} + E_{M3} + ... + E_{M12}$$

Where:

E_T =Annual OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;
E_M =Monthly OC emissions (tons/month).

2. The permittee shall require the bead supplier to submit an OC content analysis (in weight percent) for each lot of polymer beads received and shall maintain records of such analysis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:

a. the 200 tons of OC per rolling, 12-month period emission limitation;

b. the rolling, 12-month bead throughput restriction specified in A.II.2.

c. the OC content restrictions for beads processed as specified in A.II.1.

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

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitation: 7.35 lbs OC/hr (stack emissions)

      Applicable Compliance Method: The hourly OC emission limitation is based on the emissions unit's potential to emit*, therefore, no hourly recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation. If required the permittee shall demonstrate compliance with the lb/hr limitation in accordance with Methods 1 through 4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A.

      *The potential to emit is based on the storage EPS beads which represents "worst-case" emissions for pre-puff storage. The potential to emit is based on a maximum processing rate of 577.5 lbs/hr of EPS beads, the maximum OC content of EPS beads (6.7%, see A.II.1), and the maximum loss rate for EPS beads (19%): : (577.5 lbs/hr) (6.7% OC) (19% OC loss) = 7.35 lbs OC/hr.

   b. Emission Limitation: 200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined.

      Applicable Compliance Method: The permittee shall demonstrate compliance with the tons per rolling 12-month period limitation by the recordkeeping in section A.III.1.

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P005 - Pre-puff storage [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	See B.III.1	See B.III.1

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P005 and P801-P804) 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 ISCST3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the ISCST3 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: Pentane
TLV (mg/m3): 1771

Emissions Unit ID: P005

Maximum Hourly Emission Rate (lbs/hr): 80.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23,523
MAGLC (ug/m3): 42,100

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P801 - Pre-expansion [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	OAC rule 3745-31-05(A)(3)	35.98 lbs organic compounds (OC)/hr (stack emissions) See A.I.2.a
	OAC rule 3745-31-05(C)	200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined (See A.I.2.b)
	OAC rule 3745-21-07(G)	None (See A.I.2.c)

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).

2.b Annual emissions of OC (stack and fugitive) shall not exceed 200 tons per rolling 12-month period from emission units P005, P801, P802, P803, and P804 combined . The emission limitation is based on OC content and bead throughput restrictions (See A.II.1 & A.II.2) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability. For purposes of federal enforceability, emission limitations on OC effectively restrict volatile organic compound (VOC) emissions.

2.c OAC rule 3745-21-07(G) is not applicable because this emissions unit does not use liquid organic materials.

II. Operational Restrictions

1. The OC content of the polymer beads employed in this emissions unit shall not exceed the following limits:

   a. EPS beads - 6.7%, in weight percent (as received)

   b. ARCEL beads - 13.0%, in weight percent (as received).

2. The maximum rolling 12-month bead throughput for this emissions unit is limited by the following equation:

$$\sum_{M=1}^{12} \sum_{n} \left(U_n \left(C_n/100 \right)(0.97) \right) \left(1\text{ton}/2000\text{ lbs} \right) \leq 200.0$$

   Where,

   M = the increment of the rolling 12-month period;
   n = individual bead lots processed during the period;
   U_n = total throughput of the individual beads in lot n, in pounds;
   C_n = OC content in weight % for each individual lot n
   0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)
   This emissions unit has been in operation for greater than 12 months, and as such has records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information each month for this emissions unit:

   a. the company identification of each lot of polymer bead processed;

   b. the OC content, in weight percent, for each lot of polymer bead processed;

   c. the quantity, in tons, of each lot of polymer bead processed;

   d. the calculated OC emissions from each lot of polymer bead processed, in tons, using the following equations:

$$E_n = \sum_n (U_n \times C_n/100)(0.97) \times 1\text{ton}/2000\text{ lbs}$$

Where,

En = OC emissions from individual bead lots processed;
n = individual bead lots processed during the period;
U_n = total throughput of the individual beads in lot n, in pounds;
C_n = OC content in weight % for each individual lot n
0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)

e. The total OC emissions rate of all beads processed, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + ... + E_n$$

Where:

E_M = Monthly OC emissions, in tons/month; and,
En = OC emissions from individual bead lots processed (A.III.1.d)

f. the rolling, 12-month OC emission rate calculated as follows:

$$E_T = E_{M1} + E_{M2} + E_{M3} + ... + E_{M12}$$

Where:

E_T =Annual OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;
E_M =Monthly OC emissions (tons/month).

2. The permittee shall require the bead supplier to submit an OC content analysis (in weight percent) for each lot of polymer beads received and shall maintain records of such analysis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:

a. the 200 tons of OC per rolling, 12-month period emission limitation;

b. the rolling, 12-month bead throughput restriction specified in A.II.2.

c. the OC content restrictions for beads processed as specified in A.II.1.

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

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

a. Emission Limitation: 35.98 lbs OC/hr (stack emissions)

Applicable Compliance Method: The hourly OC emission limitation is based on the emissions unit's potential to emit*, therefore, no hourly recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation. . If required the permittee shall demonstrate compliance with the lb/hr limitation in accordance with Methods 1 through 4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A.

*The potential to emit is based on the processing of ARCEL beads which represents "worst-case" emissions for pre-expansion. The potential to emit is based on a maximum processing rate of 750 lbs/hr of ARCEL beads, the maximum OC content of ARCEL beads (13.0%, see A.II.1), the maximum loss rate for ARCEL beads (41%), and the percentage of the total emissions that are from the stack (90%): (750 lbs/hr) (13.0% OC) (41% OC loss) (90%) = 35.98 lbs OC/hr.

b. Emission Limitation: 200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined.

Applicable Compliance Method: The permittee shall demonstrate compliance with the tons per rolling 12-month period limitation by the recordkeeping in section A.III.1.

VI. Miscellaneous Requirements

None

Emissions Unit ID: P801

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P801 - Pre-expansion [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	See B.III.1	See B.III.1

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P005 and P801-P804) 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 ISCST3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the ISCST3 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: Pentane
   TLV (mg/m3): 1771
   Maximum Hourly Emission Rate (lbs/hr): 80.3

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23,523
MAGLC (ug/m3): 42,100

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P802 - Mold press no.1 (serial # 2707-96) [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	OAC rule 3745-31-05(A)(3)	1.57 lbs organic compounds (OC)/hr (stack emissions) See A.I.2.a
	OAC rule 3745-31-05(C)	200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined (See A.I.2.b)
	OAC rule 3745-21-07(G)	None (See A.I.2.c)

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).

2.b Annual emissions of OC (stack and fugitive) shall not exceed 200 tons per rolling 12-month period from emission units P005, P801, P802, P803, and P804 combined . The emission limitation is based on OC content and bead throughput restrictions (See A.II.1 & A.II.2) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability. For purposes of federal enforceability, emission limitations on OC effectively restrict volatile organic compound (VOC) emissions.

2.c OAC rule 3745-21-07(G) is not applicable because this emissions unit does not use liquid organic materials.

II. Operational Restrictions

1. The OC content of the polymer beads employed in this emissions unit shall not exceed the following limits:

   a. EPS beads - 6.7%, in weight percent (as received)

   b. ARCEL beads - 13.0%, in weight percent (as received).

2. The maximum rolling 12-month bead throughput for this emissions unit is limited by the following equation:

$$\sum_{M=1}^{12} \sum_{n} \left(U_n \cdot C_n / 100 \right) (0.97) \left(1\,\text{ton}/2000\,\text{lbs} \right) \leq 200.0$$

   Where,

   M = the increment of the rolling 12-month period;
   n = individual bead lots processed during the period;
   U_n = total throughput of the individual beads in lot n, in pounds;
   C_n = OC content in weight % for each individual lot n
   0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)
   This emissions unit has been in operation for greater than 12 months, and as such has records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information each month for this emissions unit:

   a. the company identification of each lot of polymer bead processed;

   b. the OC content, in weight percent, for each lot of polymer bead processed;

   c. the quantity, in tons, of each lot of polymer bead processed;

   d. the calculated OC emissions from each lot of polymer bead processed, in tons, using the following equations:

$$E_n = \sum_n (U_n C_n/100)(0.97)(1\text{ton}/2000\text{ lbs})$$

Where,

En = OC emissions from individual bead lots processed;
n = individual bead lots processed during the period;
U_n = total throughput of the individual beads in lot n, in pounds;
C_n = OC content in weight % for each individual lot n
0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)

e. The total OC emissions rate of all beads processed, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + ... + E_n$$

Where:

E_M = Monthly OC emissions, in tons/month; and,
En = OC emissions from individual bead lots processed (A.III.1.d)

f. the rolling, 12-month OC emission rate calculated as follows:

$$E_T = E_{M1} + E_{M2} + E_{M3} + ... + E_{M12}$$

Where:

E_T =Annual OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;
E_M =Monthly OC emissions (tons/month).

2. The permittee shall require the bead supplier to submit an OC content analysis (in weight percent) for each lot of polymer beads received and shall maintain records of such analysis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:

   a. the 200 tons of OC per rolling, 12-month period emission limitation;

   b. the rolling, 12-month bead throughput restriction specified in A.II.2.

   c. the OC content restrictions for beads processed as specified in A.II.1.

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

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitation: 1.57 lbs OC/hr (stack emissions)

      Applicable Compliance Method: The hourly OC emission limitation is based on the emissions unit's potential to emit*, therefore, no hourly recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation. If required the permittee shall demonstrate compliance with the lb/hr limitation in accordance with Methods 1 through 4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A.

      *The potential to emit is based on the processing of EPS beads which represents "worst-case" emissions for mold press no. 1. The potential to emit is based on a maximum processing rate of 600 lbs/hr of EPS beads, the maximum OC content of EPS beads (6.7%, see A.II.1), the maximum loss rate for EPS beads (13%) and the percentage of the total emissions that are from the stack (30%): (600 lbs/hr) (6.7% OC) (13% OC loss) (30%) = 1.57 lbs OC/hr.

   b. Emission Limitation: 200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined.

      Applicable Compliance Method: The permittee shall demonstrate compliance with the tons per rolling 12-month period limitation by the recordkeeping in section A.III.1.

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P802 - Mold press no.1 (serial # 2707-96) [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	See B.III.1	See B.III.1

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P005 and P801-P804) 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 ISCST3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the ISCST3 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: Pentane
TLV (mg/m3): 1771
Maximum Hourly Emission Rate (lbs/hr): 80.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23,523
MAGLC (ug/m3): 42,100

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P803 - Mold press no.2 (serial # 1089-87) [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	OAC rule 3745-31-05(A)(3)	0.78 lbs organic compounds (OC)/hr (stack emissions) See A.I.2.a
	OAC rule 3745-31-05(C)	200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined (See A.I.2.b)
	OAC rule 3745-21-07(G)	None (See A.I.2.c)

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).

2.b Annual emissions of OC (stack and fugitive) shall not exceed 200 tons per rolling 12-month period from emission units P005, P801, P802, P803, and P804 combined . The emission limitation is based on OC content and bead throughput restrictions (See A.II.1 & A.II.2) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability. For purposes of federal enforceability, emission limitations on OC effectively restrict volatile organic compound (VOC) emissions.

2.c OAC rule 3745-21-07(G) is not applicable because this emissions unit does not use liquid organic materials.

II. Operational Restrictions

1. The OC content of the polymer beads employed in this emissions unit shall not exceed the following limits:

   a. EPS beads - 6.7%, in weight percent (as received)

   b. ARCEL beads - 13.0%, in weight percent (as received).

2. The maximum rolling 12-month bead throughput for this emissions unit is limited by the following equation:

$$\sum_{M=1}^{12} \sum_{n} \left(U_n \left(C_n/100 \right)(0.97) \right) \left(1\text{ton}/2000\text{ lbs} \right) \leq 200.0$$

   Where,

   M = the increment of the rolling 12-month period;
   n = individual bead lots processed during the period;
   U_n = total throughput of the individual beads in lot n, in pounds;
   C_n = OC content in weight % for each individual lot n
   0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)
   This emissions unit has been in operation for greater than 12 months, and as such has records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information each month for this emissions unit:

   a. the company identification of each lot of polymer bead processed;

   b. the OC content, in weight percent, for each lot of polymer bead processed;

   c. the quantity, in tons, of each lot of polymer bead processed;

   d. the calculated OC emissions from each lot of polymer bead processed, in tons, using the following equations:

$$E_n = \sum_n (U_n C_n/100)(0.97)(1\text{ton}/2000\text{ lbs})$$

Where,

En = OC emissions from individual bead lots processed;
n = individual bead lots processed during the period;
U_n = total throughput of the individual beads in lot n, in pounds;
C_n = OC content in weight % for each individual lot n
0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)

e. The total OC emissions rate of all beads processed, in tons/month, calculated as follows:

$$E_M = E_1 + E_2 + E_3 + ... + E_n$$

Where:

E_M = Monthly OC emissions, in tons/month; and,
En = OC emissions from individual bead lots processed (A.III.1.d)

f. the rolling, 12-month OC emission rate calculated as follows:

$$E_T = E_{M1} + E_{M2} + E_{M3} + ... + E_{M12}$$

Where:

E_T =Annual OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;
E_M =Monthly OC emissions (tons/month).

2. The permittee shall require the bead supplier to submit an OC content analysis (in weight percent) for each lot of polymer beads received and shall maintain records of such analysis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:

a. the 200 tons of OC per rolling, 12-month period emission limitation;

b. the rolling, 12-month bead throughput restriction specified in A.II.2.

c. the OC content restrictions for beads processed as specified in A.II.1.

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

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this permit shall be determined in accordance with the following methods:

   a. Emission Limitation: 0.78 lbs OC/hr (stack emissions)

      Applicable Compliance Method: The hourly OC emission limitation is based on the emissions unit's potential to emit*, therefore, no hourly recordkeeping, deviation reporting or compliance method calculations are required to demonstrate compliance with this limitation. If required the permittee shall demonstrate compliance with the lb/hr limitation in accordance with Methods 1 through 4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A.

      *The potential to emit is based on the processing of EPS beads which represents "worst-case" emissions for mold press no. 2. The potential to emit is based on a maximum processing rate of 300 lbs/hr of EPS beads, the maximum OC content of EPS beads (6.7%, see A.II.1), the maximum loss rate for EPS beads (13%) and the percentage of the total emissions that are from the stack (30%): (300 lbs/hr) (6.7% OC) (13% OC loss) (30%) = 0.78 lbs OC/hr.

   b. Emission Limitation: 200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined.

      Applicable Compliance Method: The permittee shall demonstrate compliance with the tons per rolling 12-month period limitation by the recordkeeping in section A.III.1.

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P803 - Mold press no.2 (serial # 1089-87) [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	See B.III.1	See B.III.1

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P005 and P801-P804) 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 ISCST3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the ISCST3 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: Pentane
TLV (mg/m3): 1771
Maximum Hourly Emission Rate (lbs/hr): 80.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23,523
MAGLC (ug/m3): 42,100

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P804 - Finished goods storage [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	OAC rule 3745-31-05(A)(3)	See A.I.2.a
	OAC rule 3745-31-05(C)	200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined (See A.I.2.b)
	OAC rule 3745-21-07(G)	None (See A.I.2.c)

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).

2.b Annual emissions of OC (stack and fugitive) shall not exceed 200 tons per rolling 12-month period from emission units P005, P801, P802, P803, and P804 combined . The emission limitation is based on OC content and bead throughput restrictions (See A.II.1 & A.II.2) for the purpose of establishing federally enforceable limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability. For purposes of federal enforceability, emission limitations on OC effectively restrict volatile organic compound (VOC) emissions.

2.c OAC rule 3745-21-07(G) is not applicable because this emissions unit does not use liquid organic materials.

II. Operational Restrictions

1. The OC content of the polymer beads employed in this emissions unit shall not exceed the following limits:

   a. EPS beads - 6.7%, in weight percent (as received)

   b. ARCEL beads - 13.0%, in weight percent (as received).

2. The maximum rolling 12-month bead throughput for this emissions unit is limited by the following equation:

$$\sum_{M=1}^{12} \sum_{n} (U_n)(C_n/100)(0.97)(1\text{ton}/2000\text{ lbs}) \leq 200.0$$

Where,

M = the increment of the rolling 12-month period;
n = individual bead lots processed during the period;
U_n = total throughput of the individual beads in lot n, in pounds;
C_n = OC content in weight % for each individual lot n
0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)
This emissions unit has been in operation for greater than 12 months, and as such has records to demonstrate compliance with the rolling 12-month restrictions upon issuance of this permit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information each month for this emissions unit:

   a. the company identification of each lot of polymer bead processed;

   b. the OC content, in weight percent, for each lot of polymer bead processed;

   c. the quantity, in tons, of each lot of polymer bead processed;

   d. the calculated OC emissions from each lot of polymer bead processed, in tons, using the following equations:

$$E_n = \sum_{n} (U_n)(C_n/100)(0.97)(1\text{ton}/2000\text{ lbs})$$

Where,

En = OC emissions from individual bead lots processed;
n = individual bead lots processed during the period;
U_n = total throughput of the individual beads in lot n, in pounds;
C_n = OC content in weight % for each individual lot n
0.97 = 97% emission rate of OC contained in beads (3% of the OC is retained in the foam)

e. The total OC emissions rate of all beads processed, in tons/month, calculated as follows:

$E_M = E_1 + E_2 + E_3 + ... + E_n$

Where:

E_M = Monthly OC emissions, in tons/month; and,
En = OC emissions from individual bead lots processed (A.III.1.d)

f. the rolling, 12-month OC emission rate calculated as follows:

$E_T = E_{M1} + E_{M2} + E_{M3} + ... + E_{M12}$

Where:

E_T =Annual OC emissions (tons) as summed from the previous 12 months of monthly OC emissions;
E_M =Monthly OC emissions (tons/month).

2. The permittee shall require the bead supplier to submit an OC content analysis (in weight percent) for each lot of polymer beads received and shall maintain records of such analysis.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the following:

   a. the 200 tons of OC per rolling, 12-month period emission limitation;

   b. the rolling, 12-month bead throughput restriction specified in A.II.2.

   c. the OC content restrictions for beads processed as specified in A.II.1.

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

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of the terms and conditions of this

permit shall be determined in accordance with the following methods:

a. Emission Limitation: 200 tons of OC per rolling, 12-month period (stack and fugitive emissions) from emissions units P005, P801, P802, P803, and P804 combined.

Applicable Compliance Method: The permittee shall demonstrate compliance with the tons per rolling 12-month period limitation by the recordkeeping in section A.III.1.

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P804 - Finished goods storage [Modification of PTI #03-9258, issued March 20, 1996, to increase OC limitations and permit facility operations as 5 emission units (previously permitted as 2)]	See B.III.1	See B.III.1

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for these emissions units (P005 and P801-P804) 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 ISCST3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the ISCST3 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: Pentane
TLV (mg/m3): 1771

Maximum Hourly Emission Rate (lbs/hr): 80.3
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 23,523
MAGLC (ug/m3): 42,100

2. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

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

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

   b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None