



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL  
SCIOTO COUNTY**

**CERTIFIED MAIL**

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: 07-00555**

**Fac ID: 0773000080**

**DATE: 11/29/2005**

Sunoco Inc (RM)  
Bernie Marshall  
1019 Haverhill-Ohio Furnace Rd  
Haverhill, OH 45629-9999

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, Manager  
Permit Issuance and Data Management Section  
Division of Air Pollution Control

CC: USEPA

PCHD



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**Permit To Install  
Terms and Conditions**

**Issue Date: 11/29/2005  
Effective Date: 11/29/2005**

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**FINAL PERMIT TO INSTALL 07-00555**

Application Number: 07-00555  
Facility ID: 0773000080  
Permit Fee: **\$1000**  
Name of Facility: Sunoco Inc (RM)  
Person to Contact: Bernie Marshall  
Address: 1019 Haverhill-Ohio Furnace Rd  
Haverhill, OH 45629-9999

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**1019 Haverhill-Ohio Furnace Road  
Haverhill, Ohio**

Description of proposed emissions unit(s):  
**Modification to existing BPA process unit (P003) to allow for dual operation of EIMCO rotary drum vacuum filters.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

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

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

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to

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the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted (i.e., postmarked) quarterly, 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 (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, 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. If this permit is for an emissions unit located at a Title V facility, then 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.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 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.

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#### 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 re-issuance, or modification
- 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, 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 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.

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## 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 any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

## 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 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 and the State and by citizens (to the extent allowed by section 304 of the Act) 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.

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- 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 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.

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**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.

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### **13. Permit-To-Install**

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in this permit.

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

### **1. Compliance Requirements**

The emissions unit(s) identified in this Permit 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 (i.e., postmarked) quarterly, 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.

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The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

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#### **4. Authorization To Install or Modify**

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit 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)**

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. 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 this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit 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**

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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., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

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

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	17.34
VOC	39.89

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

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

#### **I. Applicable Emission Limitations and/or Control Requirements Pertaining to Facility-wide Fugitive Equipment Leaks:**

See Part II, section A.I of the Sunoco Inc. (R&M) Title V permit, issued October 14, 2004 or the subsequent amendments or modifications thereto.

#### **II. Requirements of 40 CFR Part 63, Subpart A**

See Part II, section A.III of the Sunoco Inc. (R&M) Title V permit, issued October 14, 2004 or the subsequent amendments or modifications thereto.

#### **III. Incorporation of 40 CFR Part 63, Subparts F, G, and H as Attachments to the Permit**

See Part II, section A.I and Attachments 1, 2, and 3 of the Sunoco Inc. (R&M) Title V permit, issued October 14, 2004 or the subsequent amendments or modifications thereto.

#### **IV. Requirements of 40 CFR Part 61, Subpart FF**

See Part II, section A.IV of the Sunoco Inc. (R&M) Title V permit, issued October 14, 2004 or the subsequent amendments or modifications thereto.

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

None

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Emissions Unit ID: P003

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

**A. State and Federally Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P003 - bisphenol-A process unit with the following air pollution control devices: condensers (E-107, E-207); scrubber (T-702); baghouses (F-402 , F-602)	40 CFR Part 63, Subparts F, G, and H 40 CFR Part 60, Subpart NNN 40 CFR Part 60, Subpart VV OAC rule 3745-21-09(DD) OAC rule 3745-17-07(A)
Modification to allow for dual operation of the existing EIMCO rotary drum vacuum filters	OAC rule 3745-17-11(B)
Terms and conditions in this permit supercede those identified in PTIs #07-00309 and #07-00264 issued .	

Applicable Emissions  
Limitations/Control  
Measures

Volatile organic compound emissions from the scrubber (T-702) shall be negligible.

See Part II, section A.III.

Volatile organic compound emissions from all equipment except fugitive emissions leaks shall not exceed 9.11 pounds per hour and 39.89 tons per year.

See sections A.I.2.a through A.I.2.d below

See Part II, section A.I.

See Part II, section A.I.

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.

Particulate emissions from the combined outlet of the two baghouses (F-402 & F-602) shall not exceed 17.34 tons per year.

Particulate emissions from the combined outlet of the two baghouses (F-402 & F-602) shall not exceed 3.96 pounds per hour.

The hourly emission limitation specified by this rule is less stringent than the hourly emission limitation established pursuant to OAC rule 3745-17-11(B).

The requirements of this rule also include compliance with the requirements of 40 CFR Part 63, Subparts A, F, G and H, 40 CFR Part 60, Subparts VV and NNN, OAC rule 3745-21-09(DD), OAC rule 3745-17-07(A), and OAC rule 3745-17-11(B).

See Part II, section A.II..

## 2. Additional Terms and Conditions

- 2.a** 40 CFR Part 60, Subpart NNN applies to the following distillation units and associated recovery equipment within the BPA process unit:
- i. The following equipment vents to the low vacuum system drum (D-904):
    - first crystallization flash drum (D-304)
    - second crystallization flash drum (D-501R)
    - epoxy BPA stripping column (T-601)
  - ii. The following equipment vents to the high vacuum system drum (D-903):
    - first stage crystallizer #1 (D-301)
    - first stage crystallizer #2 (D-302)
  
    - poly BPA phenol removal flash drum (D-401)
    - polycarbonate BPA stripping column (T-401)
    - epoxy BPA phenol removal flash drum (D-601)
    - second stage crystallizer #2 (D-503)
    - second stage crystallizer #1 (D-513)
    - mother liquid flash drum (D-804)
  - iii. hydrochloric acid stripper column (T-201) controlled by a condenser (E-207)
  - iv. hydrochloric acid extractive distillation column (T-701) controlled by a scrubber (T-702)
- 2.b** [40 CFR 60.660(c)(4)]  
The equipment subject to 40 CFR Part 60, Subpart NNN with a total resource effectiveness (TRE) index value of greater than 8.0 are exempt from the requirements of 40 CFR Part 60, Subpart NNN except for the requirements specified in 60.662, 60.664(d), 60.664(e), and 60.664(f), 60.665(h), and 60.665(l). In accordance with the permittee's permit application, the following distillation columns and associated recovery equipment have a TRE index value greater than 8.0: low vacuum system; high vacuum system; and hydrochloric acid stripper column (T-201).
- 2.c** [40 CFR 60.660(c)(6)]

Emissions Unit ID: P003

The equipment subject to 40 CFR Part 60, Subpart NNN with a vent stream flow rate less than 0.008 standard cubic meters per minute (scm/min) are exempt from the requirements of 40 CFR Part 60 Subpart NNN except for the requirements specified in 60.664(g) and 60.665(i), 60.665(l)(5), and 60.665(o). In accordance with the permittee's permit application, the following distillation columns have a flow rate less than 0.008 standard cubic meters per minute: hydrochloric acid extractive distillation column (T-701).

**2.d** [40 CFR 60.662]

The equipment subject to 40 CFR Part 60, Subpart NNN with a TRE index equal to or less than 8.0 and a flow rate equal to or greater than 0.008 standard cubic meter per minute (scm/m) shall comply with one of the following:

- i. Reduce the emissions of total organic compounds (TOC) by 98% by weight or to a concentration of 20 ppmv TOC, on a dry basis corrected to 3% oxygen;
- ii. Combust the emissions in a flare that meets the requirements of 40 CFR 60.18; or
- iii. Maintain a TRE index value greater than 1.0 without the use of VOC emission control devices.

**II. Operational Restrictions**

1. The condenser (E-207) exit temperature (product side) shall not exceed 149 degrees Fahrenheit as a daily average.
2. Each surge control vessel or bottoms receiver tank which meets one of the conditions listed in 40 CFR 63.170 [see Attachment 3 of the Title V permit] shall be equipped with a closed vent system that routes the organic vapors from the surge control vessel or bottoms receiver tank back to the process or to a control device that complies with the requirements of 40 CFR 63.172 [see Attachment 3 of the Title V permit] or shall be equipped with a fixed roof and an internal floating roof or an external floating roof.

In accordance with the permittee's permit application, the following surge control vessels and bottoms receiver tanks, do not exceed the threshold triggers of 40 CFR 63.170 [see Attachment 3 of the Title V permit]. Therefore, these vessels are not required to meet the conditions listed in 40 CFR 63.170 [see Attachment 3] at the time of permit issuance: D-404R, D-603, D-714, S-400B, S-400C, TK-101, D-909, D-104, D-303, D-312R, D-310, D-308, D-311, D-314, D-313, D-502R, D-202R, D-204, D-701A, D-701B, D-706A, D-706B, D-707, D-507, D-803R, D-505, D-508, and D-510.

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

1. The permittee shall perform daily checks, when the BPA process unit (emissions unit P003) is in operation and when the weather conditions allow, for any visible particulate emissions from the combined baghouse outlet stack (ST-401) serving the BPA process unit (emissions unit P003). The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
  - a. The color of the emissions;
  - b. Whether the emissions are representative of normal operations;
  - c. If the emissions are not representative of normal operations, the cause of the abnormal emissions;
  - d. The total duration of any visible emission incident; and
  - e. Any corrective actions taken to eliminate the visible emissions.

If the daily checks show emissions that are representative of normal operation for 1 operating quarter, the required frequency of visible emission checks may be reduced to weekly (once every week, when the BPA process unit (emissions unit P003) is in operation). If a subsequent check by the permittee or an Ohio EPA inspector indicates emissions that are not representative of normal operation, the frequency of emission checks shall revert back to daily until such time as there is 1 operating quarter of normal visible emissions.

The observance of visible emissions may or may not indicate a mass emission and/or visible emission violation. If required by the Portsmouth local air agency, compliance with the mass emission limitation and/or visible emission limitation shall be determined by performing mass emission tests and/or visible emission readings, using USEPA-approved methods and procedures.

2. For each process vent with a TRE > 1.0 but < 4.0 that uses a recovery device, the permittee shall monitor the recovery device operating parameters in accordance with the requirements of 40 CFR 63.114(b) [see Attachment 2 of the Title V permit].

The condenser (E-207), the final recovery device for a process vent with a TRE > 1.0 but < 4.0, shall be equipped with a condenser exit temperature monitoring device.

Emissions Unit ID: P003

The permittee shall maintain continuous records of the condenser (E-207) outlet temperature.

The permittee shall record the daily average exit temperature for each operating day.

3. Whenever process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent, the permittee shall recalculate the TRE index value, flow, or organic HAP concentration as necessary to determine if the vent is Group 1 or Group 2 in accordance with 40 CFR 63.115(e) [see Attachment 2 of the Title V permit].

The permittee shall maintain records of process vent group determinations in accordance with 40 CFR 63.117, 40 CFR 63.118(c), 40 CFR 63.118(d), and 40 CFR 63.118(e) [see Attachment 2 of the Title V permit].

4. For each Group 2 storage vessel, the permittee shall comply with the record keeping requirements of 40 CFR 63.123(a) [see Attachment 2 of the Title V permit].
5. For each Group 2 process wastewater stream, the permittee shall comply with the record keeping requirements of 40 CFR 63.147 [see Attachment 2 of the Title V permit].
6. The permittee shall maintain procedures for the management of maintenance wastewater in accordance with 40 CFR 63.105(a) [see Attachment 1 of the Title V permit].
7. [40 CFR 60.664(d)]  
The net heating value of the gas combusted for determining the process vent stream TRE index value to determine compliance under 40 CFR 60.662(c) shall be determined in accordance with the equations and procedures in 40 CFR 60.664(d).
8. [40 CFR 60.664(e)]  
For purposes of complying with 40 CFR 60.662(c), the permittee shall determine the TRE index value by calculating values using both the incinerator equation in 40 CFR 60.664(e)(1) and the flare equation in 40 CFR 60.664(e)(2) and selecting the lower of the two values.
9. [40 CFR 60.664(f)]  
The permittee seeking to comply with 40 CFR 60.660(c)(4) or 40 CFR 60.662(c) shall recalculate the TRE index value for that affected facility whenever process changes are made. Examples of process changes include changes in production capacity, feedstock type, or catalyst type, or whenever there is replacement, removal, or addition of recovery equipment. The TRE index value shall be recalculated based on test data, or on best engineering estimates of the effects of the change to the recovery system.

- a. Where the recalculated TRE index value is less than or equal to 1.0, the permittee shall notify the Administrator, with a copy to the Portsmouth local air agency, within 1 week of the recalculation and shall conduct a performance test according to the methods and procedures required by 40 CFR 60.664 in order to determine compliance with 40 CFR 60.662(a). Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.
  - b. Where the initial TRE index value is greater than 8.0 and the recalculated TRE index value is less than or equal to 8.0 but greater than 1.0, the permittee shall conduct a performance test in accordance with 40 CFR 60.8 and 40 CFR 60.664 and shall comply with 40 CFR 60.663, 60.664, and 60.665. Performance tests must be conducted as soon as possible after the process change but no later than 180 days from the time of the process change.
10. [40 CFR 60.663(d)]  
For distillation columns complying with the TRE index value limit specified under 40 CFR 60.662(c) of greater than or equal to 1.0, the permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications the equipment specified in 40 CFR 60.663(d).
11. [40 CFR 60.665(h)]  
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.662(c):
  - a. Any changes in production capacity feedstock type, catalyst type, or of any replacement, removal, or addition of recovery equipment or a distillation unit;
  - b. Any recalculation of the TRE performed pursuant to 40 CFR 60.664(f); and
  - c. The results of any performance test performed pursuant to 40 CFR 60.664(d).
12. [40 CFR 60.664(g)]  
The permittee shall use Method 2, 2A, 2C, or 2D, 40 CFR Part 60, Appendix A for determination of the flow rate to demonstrate compliance with 40 CFR 60.660(c)(6).
13. [40 CFR 60.665(i)]  
The permittee shall maintain the following records for each piece of equipment complying with 40 CFR 60.660(c)(6):

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- a. That the vent stream flow rate is less than 0.008 standard cubic meter per minute; and
  - b. Any change in equipment or process operation that increases the vent stream flow rate including a measurement of the new vent stream flow rate.
14. The permittee shall maintain records for benzene waste operations in accordance with the requirements specified in 40 CFR 61.356, 40 CFR 61.356(a), and 61356(b) [see Part II, section A.IV].

#### IV. Reporting Requirements

1. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the combined baghouse outlet stack (ST-401) serving the BPA process unit (emissions unit P003) and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) by January 31 and July 31 of each year and shall cover the previous 6-month period.
2. The permittee shall report all daily average condenser (E-207) exit temperatures that exceed the temperature limitations above.
3. The permittee shall submit periodic reports in accordance with 40 CFR 63.152(c) [see Attachment 2]. The periodic reports shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The reports shall include all information specified in 40 CFR 63.117 and 63.118 [see Attachment 2 of the Title V permit] for process vents and all information specified in 40 CFR 63.146 [see Attachment 2 of the Title V permit] for process wastewater, including reports of periods when monitored parameters are outside their established ranges.
4. Whenever the recalculations (performed when process changes are made that could reasonably be expected to change a Group 2 process vent to a Group 1 process vent) determine that one of the criteria below has been met, the permittee shall submit a report as specified in 40 CFR 63.118(g) through (j) [see Attachment 2 of the Title V permit] and the permittee shall comply with the appropriate provisions in 40 CFR 63.113 [see Attachment 2 of the Title V permit] by the dates specified in 40 CFR Part 63, Subpart F [see Attachment 1 of the Title V permit].
  - a. The recalculated TRE index value is less than or equal to 1.0;
  - b. The recalculated TRE index value is less than or equal to 4.0 but greater than 1.0;

- c. The recalculated flow rate is greater than or equal to 0.005 standard cubic meter per minute; or
  - d. The recalculated concentration is greater than or equal to 50 parts per million by volume.
5. The permittee shall submit the information required in 40 CFR 60.665(b)(4) when demonstrating compliance with the TRE index value of greater than 1.0 option of 40 CFR 60.662(c).
6. [40 CFR 60.665(l)]  
The permittee shall submit semiannual reports of the following recorded information:
  - a. Any change in equipment or process operation that increases the operating vent stream flow rate above the low flow exemption level in 40 CFR 60.660(c)(6), including a measurement of the new vent stream flow rate, as recorded under 40 CFR 60.665(i). These must be reported as soon as possible after the change and no later than 180 days after the change. These reports may be submitted either in conjunction with semiannual reports or as a single separate report. A performance test must be completed with the same time period to verify the recalculated flow value and to obtain the vent stream characteristics of heating value and ETOC (hourly emission rate of TOC). The performance test is subject to the requirements of 40 CFR 60.8. Unless the facility qualifies for an exemption under the low capacity exemption status in 40 CFR 60.660(c)(5), the facility must begin compliance with the requirements set forth in 40 CFR 60.662.
  - b. Any recalculation of the TRE index value, as recorded under 40 CFR 60.665(h).
7. The permittee shall submit reports of start-up, shutdown, and malfunction in accordance with 40 CFR 63.10(d)(5) [see Part II, section A.III] and 40 CFR 63.152(d)(1) [see Attachment 2 of the Title V permit]. The semiannual start-up, shutdown and malfunction reports may be submitted on the same schedule as the periodic reports required under 40 CFR 63.152(c) [see Attachment 2 of the Title V permit] instead of the schedule specified in 40 CFR 63.10(d)(5) [see Part II, section A.III].
8. The deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.
9. The permittee shall submit reports for benzene waste operations in accordance with

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the requirements specified in 40 CFR 61.357(a)(1) through (a)(3) [see Part II, section A.IV].

- 10.** Reports required by 40 CFR Part 63, Subparts F, G, and H [see Attachments 1, 2, and 3 of the Title V permit] shall be submitted to USEPA Region 5, with a copy to the Portsmouth local air agency, in accordance with 40 CFR 63.103(d) & (d)(1) [see Attachment 1 of the Title V permit].

## V. Testing Requirements

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

- 1.a Emission Limitation:

Volatile organic compound emissions from all equipment except fugitive equipment leaks shall not exceed 9.11 pounds per hour.

Volatile organic compound emissions from all equipment except fugitive equipment leaks shall not exceed 39.89 tons per year.

Volatile organic compound emissions from the hydrochloric acid scrubber (T-702) shall be negligible.

Applicable Compliance Method:

The volatile organic compound emissions (potential to emit) from the following equipment as listed below shall be summed.

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18, 25 or 25A, as appropriate.

Equipment ID	Equipment Description	Egress Point	Control Device	VOC (lb/hr)	VOC (tpy)	Notes
D-103	Acetone feed surge drum	PB01	E-107 Condenser	<0.01	0.01	5
D-903	High vacuum system drum	PB01	None	0.5	2.18	1, 6
D-904	Low vacuum system drum	PB01	None	0.06	0.25	2, 6
S-400A	Phenol water decanter	PB01	None	<0.01	<0.01	6
S-400B	Water side surge drum	PB01	None	<0.01	<0.01	6
S-400C	Phenol side surge drum	PB01	None	<0.01	<0.01	6
T-402	Poly BPA prill tower	PB01	F-402 Baghouse	0	0	6
T-602	Epoxy BPA prill tower	PB01	F-602 Baghouse	0	0	6
TK-901A/B	Vacuum pump suction seal tanks	PB01	None	<0.01	<0.01	6
TK-101	Recycled phenol tank	PB02	None	0.22	0.96	6
D-104	Tartaric acid drum	PB03	None	<0.01	<0.01	6
T-201	Hydrochloric acid stripper column	PB04	E-207 Condenser	5.39	23.62	5, 7
D-303	D-301 feed mixing drum	PB05	None	0.04	0.16	6
D-312R	Filter feed drum	PB06	None	0.01	0.03	6

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S-301/2, D-310	EIMCO rotary drum vacuum filter system and filtered BPA remelt/mixing drum	PB07	None	2.71	11.86	6
D-308	Intermediate washing liquor drum	PB08	None	<0.01	<0.01	6
D-311	Final washing liquor drum	PB09	None	<0.01	<0.01	6
D-314	S-301/302 barometric pot	PB10	None	<0.01	<0.01	6
D-313	Mother liquor drum	PB11	None	0.01	0.06	6
D-402	Vent condenser barometric pot	PB12	None	<0.01	<0.01	6
D-404R	Melted poly BPA surge drum	PB13	None	<0.01	0.01	6
D-502R	D-513 feed mixing drum	PB15	None	<0.01	<0.01	6
D-603	Molten epoxy BPA surge drum	PB16	None	<0.01	<0.01	6
D-702	CaCl solution surge tank	PB17	None	0	0	6
D-714	Tar decanter	PB18	None	<0.01	<0.01	6
T-702	Hydrochloric acid vent scrubber	PB19	T-702 Scrubber	<0.01	<0.01	3, 5
D-507	Wet phenol reflux drum	PB21	None	<0.01	<0.01	6
D-802R	Heavy residue surge drum	PB21	None	0.11	0.47	6
D-803R	Overhead condensate drum	PB21	None	<0.01	<0.01	6
D-912	Phenolic vent system knockout drum	PB21	None	0.01	0.04	6
TK-902	Reaction building drain sump	PB22	None	0.02	0.1	6
TK-904	Purification building drain sump	PB23	None	0.02	0.11	6
TK-2122	Storm water sump	PB24	None	<0.01	0.02	6
D-505	Centrifuge slurry feed drum	PB25	None	<0.01	<0.01	4, 6

1. The following equipment is vented to the high vacuum system drum (D-903): first stage crystallizer #1 (D-301), first stage crystallizer #2 (D-302), polycarbonate BPA phenol removal flash drum (D-401), second stage crystallizer #2 (D-503), second stage crystallizer #1 (D-513), epoxy BPA phenol removal flash drum (D-601), mother liquor flash drum (D-804), and polycarbonate BPA stripping column (T-401).

2. The following equipment is vented to the low vacuum system drum (D-904): first crystallization flash drum (D-304), second crystallization flash drum (D-501R), epoxy BPA stripping column (T-601).

3. The following equipment is vented to the hydrochloric acid vent scrubber (T-702): hydrochloric acid surge drum (D-708), extractive distillation column (T-701), hydrochloric acid storage tank (TK-2002), acidic vent washing column (T-203), T-201 barometric pot B (D-203), acidic phenol drum (D-204), acidic phenolic water surge drums (D-701A/B), crude acidic phenolic water surge drums (D-706A/B), residual water surge drum (D-707), calcium chloride solution flash drum (D-710), spare calcium chloride solution flash drum (D-710A), calcium chloride surge tank (D-717), calcium chloride pump tank (D-718), tar decanter (D-719), and tar storage tank (D-720).

4. The following equipment is vented to the centrifuge slurry feed drum (D-505): second stage mother liquor drum (D-506), BPA to phenol plant surge drum (D-508), 2nd crystallization reslurry drum (D-510), and 2nd crystallization screen bowl centrifuges (F-501A/B).

5. VOC emissions (lb/hr and tpy) from this equipment are controlled. The VOC emissions include the emissions reductions due to the control device. These values represent those identified in previous application submittals (PTI 07-00264, PTI 07-00309). Individual equipment VOC (lb/hr and tpy) values are not independently enforceable in this permit.

6. VOC emissions (lb/hr and tpy) from this equipment are uncontrolled. These values represent the potential to emit and are identified in previous application submittals (PTI 07-00264, PTI 07-00309). Individual equipment VOC (lb/hr and tpy) values are not independently enforceable in this permit.

7. Compliance of the hydrochloric acid stripper column (T-201) shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Subpart NNN to demonstrate that VOC emissions are negligible (negligible flow rate).

### 1.b Emission Limitation:

Particulate emissions from the combined baghouse outlet (ST-401 stack) of the two baghouses (F-402 & F-602) shall not exceed 17.34 tons per year.

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Applicable Compliance Method:

This emission limitation was determined by multiplying the allowable hourly emission limitation (3.96 pounds per hour) by 8,760 hours per year, and then dividing by 2,000 pounds per ton. Since this hourly emission limitation is less stringent than the emission limitation established in Section A.V.1.d, compliance with the ton per year emission limitation shall be assumed provided compliance with the hourly emission limitation in Section A.V.1.d is maintained.

**1.c** Emission Limitation:

Visible particulate emissions from the combined baghouse outlet (ST-401 stack) of the two baghouses (F-402 & F-602) shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Method 9 and the procedures and methods required in OAC rule 3745-17-03(B)(1).

**1.d** Emission Limitation:

Particulate emissions from the combined baghouse outlet (ST-401 stack) of the two baghouses (F-402 & F-602) shall not exceed 3.96 pounds per hour.

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the requirements specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

**VI. Miscellaneous Requirements**

None

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**B. State Only Enforceable Section**

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

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P003 - bisphenol-A process unit with the following air pollution control devices: condensers (E-107, E-207); scrubber (T-702); baghouses (F-402 , F-602)		

**2. Additional Terms and Conditions**

2.a None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

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None