State of Ohio Environmental Protection Agency

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

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

**Application No:** 03-13946

**DATE:** 5/29/2003

Heinz USA, Division of H.J. Heinz Co.
Robert D. Ridoutt
PO Box 647 1200 N Fifth Street
Fremont, OH 434200647

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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,
Michael W. Ahern
Michael W. Ahern, Supervisor
Field Operations and Permit Section
Division of Air Pollution Control

**CC: USEPA** **NWDO**

**FINAL PERMIT TO INSTALL 03-13946**

| | |
|---|---|
| Application Number: | 03-13946 |
| APS Premise Number: | 0372030070 |
| Permit Fee: | **$2650** |
| Name of Facility: | Heinz USA, Division of H.J. Heinz Co. |
| Person to Contact: | Robert D. Ridoutt |
| Address: | PO Box 647 1200 N Fifth Street<br>Fremont, OH 434200647 |

Location of proposed air contaminant source(s) [emissions unit(s)]:
**1200 N Fifth Street**
**Fremont, Ohio**

Description of proposed emissions unit(s):
**2 new vinegar acetators,modification to 4 existing acetators,permit as one emissions unit, and permit two existing alcohol storage tanks.**

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 <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

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

### 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**

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

**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 | 89.9 |

**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 |
|---|---|---|
| P012 - vinegar acetator no.1(modification to PTI 03-13833 issued on 10/1/02) | OAC rule 3745-31-05 (A)(3) | 3.4 lbs OC/hr, 14.89 tons OC/yr (See A.I.2.b) |
| | OAC rule 3745-21-07 (G) | See A.I.2.a |
| | | See A.II.1 |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control measures for this emissions unit has been determined to be the use of two condensers operating in parallel which reduce OC emissions from this emissions unit to a mass emission rate not to exceed 3.4 lbs/hr. The two condensers control OC emissions from all six vinegar acetators (emission units P012, P013, P014, P015, P016, & P017).

**2.b** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(1).

2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most

recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The company shall collect and maintain a record of the following information for this emissions unit:

   a. The company identification for each material employed in this emissions unit; and
   b. Documentation on whether or not each material employed is a photochemically reactive material

2. The permittee shall operate and maintain a continuous temperature monitor recorder which measures and records the temperature of the exhaust gases from the condensers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. The average temperature of the exhaust gases from the condensers during each of the (8) 3-hr blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, two condensers, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condensers exceeded the temperature limitation specified above.

3. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the capture (collection) system, either of the two condensers or monitoring equipment were not in service while the emissions was in operation.

The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 180 days following the first day this emissions unit commences modified operation/s as allowed for by this PTI.

   b. The emission testing shall be conducted to demonstrate compliance with hourly allowable mass emission rate of 3.4 lbs OC from the two condensers (See A.V.1.d).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for OC, Methods 1-4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The test shall be conducted on the stack serving the two condensers. Emission testing shall be conducted in conjunction with the testing required for emission units P013, P014, P015, P016 & P017. Compliance with the 3.4 lb OC/hr emission limitation will be demonstrated by showing that emissions units P012-P017 do not exceed an additive lb/hr OC limit of 20.4. Emission units P012, P013, P014, P015, P016, & P017 shall be operating at their maximum capacity during the test, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

      Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

      Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

      A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air

agency.

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

   a. Emission Limitation: 3.4 lbs OC/hr

      Applicable Compliance Method: The 3.4 lbs OC/hr emission limitation was established by applying a 30% control efficiency for the use of two condensers to a manufacturer's specified emission rate of 4.85 lbs OC/hr. Compliance with the lb/hr limitation shall be shown through testing required in section A.V.1 of the terms and conditions of the permit.

   b. Emission Limitation: 14.89 tons OC/yr

      Applicable Compliance Method: The tons/ye emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hr/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## VI. Miscellaneous Requirements

1. The permittee shall permanently shut down the six existing vinegar generators (emission units; P003, P007, P008, P009, P010, and P011) upon completion of a shakedown period involving the modified and new vinegar acetators (emission units P012-P017). The shakedown period shall not exceed 180 days. The 180 day shakedown period commences when one of the modified and/or new vinegar acetators begins to emit organic compounds. The permittee shall submit written notification of the following at the appropriate times:

   a. date of shakedown period commencement (within 15 days after such date); and

   b. date that all six existing vinegar generators have been permanently shutdown (within 15 days after such date)

   The written notifications are to be sent to:

   Ohio EPA, Northwest District Office
   347 North Dunbridge Road
   Bowling Green, OH 43402

## 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 |
|---|---|---|
| P012 - vinegar acetator no.1(modification to pti 03-13833 issued on 10/1/02) | None | None |

**2. Additional Terms and Conditions**

**2.a** None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emission units P012, P013, P014, P015, P016, & P017 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the"worst case" pollutant(s):

   Pollutant: Acetic acid
   TLV (mg/m3): 24.5
   Maximum Hourly Emission Rate (lbs/hr): 1.848

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 188.9
MAGLC (ug/m3): 583

Pollutant: Ethyl Acetate:
TLV (mg/m3): 1441

Maximum Hourly Emission Rate (lbs/hr): 10.176
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1040
MAGLC (ug/m3): 34310

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 compositions of the materials, or use of new materials that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluation 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 |
|---|---|---|
| P013 - vinegar acetator no.2 (modification to pti 03-13833 issued on 10/1/02) | OAC rule 3745-31-05 (A)(3) | 3.4 lbs OC/hr, 14.89 tons OC/yr (See A.I.2.b) |
| | OAC rule 3745-21-07 (G) | See A.I.2.a |
| | | See A.II.1 |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control measures for this emissions unit has been determined to be the use of two condensers operating in parallel which reduce OC emissions from this emissions unit to a mass emission rate not to exceed 3.4 lbs/hr. The two condensers control OC emissions from all six vinegar acetators (emission units P012, P013, P014, P015, P016, & P017).

**2.b** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(1).

2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most

recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The company shall collect and maintain a record of the following information for this emissions unit:

   a. The company identification for each material employed in this emissions unit; and
   b. Documentation on whether or not each material employed is a photochemically reactive material

2. The permittee shall operate and maintain a continuous temperature monitor recorder which measures and records the temperature of the exhaust gases from the condensers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. The average temperature of the exhaust gases from the condensers during each of the (8) 3-hr blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, two condensers, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condensers exceeded the temperature limitation specified above.

3. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the capture (collection) system, either of the two

condensers or monitoring equipment were not in service while the emissions was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 180 days following the first day this emissions unit commences modified operation/s as allowed for by this PTI.

   b. The emission testing shall be conducted to demonstrate compliance with hourly allowable mass emission rate of 3.4 lbs OC from the two condensers (See A.V.1.d).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for OC, Methods 1-4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The test shall be conducted on the stack serving the two condensers. Emission testing shall be conducted in conjunction with the testing required for emission units P012, P014, P015, P016 & P017. Compliance with the 3.4 lb OC/hr emission limitation will be demonstrated by showing that emissions units P012-P017 do not exceed an additive lb/hr OC limit of 20.4. Emission units P012, P013, P014, P015, P016, & P017 shall be operating at their maximum capacity during the test, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

      Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

      Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

      A comprehensive written report on the results of the emissions test(s) shall be signed by

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

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

   a. Emission Limitation: 3.4 lbs OC/hr

      Applicable Compliance Method: The 3.4 lbs OC/hr emission limitation was established by applying a 30% control efficiency for the use of two condensers to a manufacturer's specified emission rate of 4.85 lbs OC/hr. Compliance with the lb/hr limitation shall be shown through testing required in section A.V.1 of the terms and conditions of the permit.

   b. Emission Limitation: 14.89 tons OC/yr

      Applicable Compliance Method: The tons/ye emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hr/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## VI. Miscellaneous Requirements

1. The permittee shall permanently shut down the six existing vinegar generators (emission units; P003, P007, P008, P009, P010, and P011) upon completion of a shakedown period involving the modified and new vinegar acetators (emission units P012-P017). The shakedown period shall not exceed 180 days. The 180 day shakedown period commences when one of the modified and/or new vinegar acetators begins to emit organic compounds. The permittee shall submit written notification of the following at the appropriate times:

   a. date of shakedown period commencement (within 15 days after such date); and

   b. date that all six existing vinegar generators have been permanently shutdown (within 15 days after such date)

   The written notifications are to be sent to:

   Ohio EPA, Northwest District Office
   347 North Dunbridge Road
   Bowling Green, OH 43402

## 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 |
|---|---|---|
| P013 - vinegar acetator no.2 (modification to pti 03-13833 issued on 10/1/02) | None | None |

**2. Additional Terms and Conditions**

**2.a** None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emission units P012, P013, P014, P015, P016, & P017 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the"worst case" pollutant(s):

   Pollutant: Acetic acid
   TLV (mg/m3): 24.5
   Maximum Hourly Emission Rate (lbs/hr): 1.848

Emissions Unit ID: P013

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 188.9
MAGLC (ug/m3): 583

Pollutant: Ethyl Acetate:
TLV (mg/m3): 1441

Maximum Hourly Emission Rate (lbs/hr): 10.176
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1040
MAGLC (ug/m3): 34310

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 compositions of the materials, or use of new materials that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluation 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 |
|---|---|---|
| P014 - vinegar acetator no.3 (modification to pti 03-13833 issued on 10/1/02 | OAC rule 3745-31-05 (A)(3) | 3.4 lbs OC/hr, 14.89 tons OC/yr (See A.I.2.b) |
| | OAC rule 3745-21-07 (G) | See A.I.2.a |
| | | See A.II.1 |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control measures for this emissions unit has been determined to be the use of two condensers operating in parallel which reduce OC emissions from this emissions unit to a mass emission rate not to exceed 3.4 lbs/hr. The two condensers control OC emissions from all six vinegar acetators (emission units P012, P013, P014, P015, P016, & P017).

**2.b** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(1).

2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most

recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The company shall collect and maintain a record of the following information for this emissions unit:

   a. The company identification for each material employed in this emissions unit; and
   b. Documentation on whether or not each material employed is a photochemically reactive material

2. The permittee shall operate and maintain a continuous temperature monitor recorder which measures and records the temperature of the exhaust gases from the condensers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. The average temperature of the exhaust gases from the condensers during each of the (8) 3-hr blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, two condensers, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condensers exceeded the temperature limitation specified above.

3. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the capture (collection) system, either of the two

condensers or monitoring equipment were not in service while the emissions was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 180 days following the first day this emissions unit commences modified operation/s as allowed for by this PTI.

   b. The emission testing shall be conducted to demonstrate compliance with hourly allowable mass emission rate of 3.4 lbs OC from the two condensers (See A.V.1.d).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for OC, Methods 1-4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The test shall be conducted on the stack serving the two condensers. Emission testing shall be conducted in conjunction with the testing required for emission units P012, P013, P015, P016 & P017. Compliance with the 3.4 lb OC/hr emission limitation will be demonstrated by showing that emissions units P012-P017 do not exceed an additive lb/hr OC limit of 20.4. Emission units P012, P013, P014, P015, P016, & P017 shall be operating at their maximum capacity during the test, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

      Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

      Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

      A comprehensive written report on the results of the emissions test(s) shall be signed by

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

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

   a. Emission Limitation: 3.4 lbs OC/hr

      Applicable Compliance Method: The 3.4 lbs OC/hr emission limitation was established by applying a 30% control efficiency for the use of two condensers to a manufacturer's specified emission rate of 4.85 lbs OC/hr. Compliance with the lb/hr limitation shall be shown through testing required in section A.V.1 of the terms and conditions of the permit.

   b. Emission Limitation: 14.89 tons OC/yr

      Applicable Compliance Method: The tons/ye emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hr/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## VI. Miscellaneous Requirements

1. The permittee shall permanently shut down the six existing vinegar generators (emission units; P003, P007, P008, P009, P010, and P011) upon completion of a shakedown period involving the modified and new vinegar acetators (emission units P012-P017). The shakedown period shall not exceed 180 days. The 180 day shakedown period commences when one of the modified and/or new vinegar acetators begins to emit organic compounds. The permittee shall submit written notification of the following at the appropriate times:

   a. date of shakedown period commencement (within 15 days after such date); and

   b. date that all six existing vinegar generators have been permanently shutdown (within 15 days after such date)

   The written notifications are to be sent to:

   Ohio EPA, Northwest District Office
   347 North Dunbridge Road
   Bowling Green, OH 43402

**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 |
|---|---|---|
| P014 - vinegar acetator no.3 (modification to pti 03-13833 issued on 10/1/02 | None | None |

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

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

1. The permit to install for emission units P012, P013, P014, P015, P016, & P017 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the"worst case" pollutant(s):

   Pollutant: Acetic acid
   TLV (mg/m3): 24.5
   Maximum Hourly Emission Rate (lbs/hr): 1.848
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 188.9
   MAGLC (ug/m3): 583

   Pollutant: Ethyl Acetate:
   TLV (mg/m3): 1441

Maximum Hourly Emission Rate (lbs/hr): 10.176
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1040
MAGLC (ug/m3): 34310

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 compositions of the materials, or use of new materials that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluation 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 |
|---|---|---|
| P015 - vinegar acetator no.4 (modification to pti 03-13833 issued on 10/1/02) | OAC rule 3745-31-05 (A)(3) | 3.4 lbs OC/hr, 14.89 tons OC/yr (See A.I.2.b) |
| | OAC rule 3745-21-07 (G) | See A.I.2.a |
| | | See A.II.1 |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control measures for this emissions unit has been determined to be the use of two condensers operating in parallel which reduce OC emissions from this emissions unit to a mass emission rate not to exceed 3.4 lbs/hr. The two condensers control OC emissions from all six vinegar acetators (emission units P012, P013, P014, P015, P016, & P017).

**2.b** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(1).

2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most

recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The company shall collect and maintain a record of the following information for this emissions unit:

   a. The company identification for each material employed in this emissions unit; and
   b. Documentation on whether or not each material employed is a photochemically reactive material

2. The permittee shall operate and maintain a continuous temperature monitor recorder which measures and records the temperature of the exhaust gases from the condensers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. The average temperature of the exhaust gases from the condensers during each of the (8) 3-hr blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, two condensers, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condensers exceeded the temperature limitation specified above.

3. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the capture (collection) system, either of the two

condensers or monitoring equipment were not in service while the emissions was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 180 days following the first day this emissions unit commences modified operation/s as allowed for by this PTI.

   b. The emission testing shall be conducted to demonstrate compliance with hourly allowable mass emission rate of 3.4 lbs OC from the two condensers (See A.V.1.d).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for OC, Methods 1-4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The test shall be conducted on the stack serving the two condensers. Emission testing shall be conducted in conjunction with the testing required for emission units P012, P013, P014, P016 & P017. Compliance with the 3.4 lb OC/hr emission limitation will be demonstrated by showing that emissions units P012-P017 do not exceed an additive lb/hr OC limit of 20.4. Emission units P012, P013, P014, P015, P016, & P017 shall be operating at their maximum capacity during the test, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

      Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

      Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

      A comprehensive written report on the results of the emissions test(s) shall be signed by

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

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

   a. Emission Limitation: 3.4 lbs OC/hr

      Applicable Compliance Method: The 3.4 lbs OC/hr emission limitation was established by applying a 30% control efficiency for the use of two condensers to a manufacturer's specified emission rate of 4.85 lbs OC/hr. Compliance with the lb/hr limitation shall be shown through testing required in section A.V.1 of the terms and conditions of the permit.

   b. Emission Limitation: 14.89 tons OC/yr

      Applicable Compliance Method: The tons/ye emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hr/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## VI. Miscellaneous Requirements

1. The permittee shall permanently shut down the six existing vinegar generators (emission units; P003, P007, P008, P009, P010, and P011) upon completion of a shakedown period involving the modified and new vinegar acetators (emission units P012-P017). The shakedown period shall not exceed 180 days. The 180 day shakedown period commences when one of the modified and/or new vinegar acetators begins to emit organic compounds. The permittee shall submit written notification of the following at the appropriate times:

   a. date of shakedown period commencement (within 15 days after such date); and

   b. date that all six existing vinegar generators have been permanently shutdown (within 15 days after such date)

   The written notifications are to be sent to:

Ohio EPA, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

**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 |
|---|---|---|
| P015 - vinegar acetator no.4 (modification to pti 03-13833 issued on 10/1/02) | None | None |

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

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

1. The permit to install for emission units P012, P013, P014, P015, P016, & P017 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the"worst case" pollutant(s):

   Pollutant: Acetic acid
   TLV (mg/m3): 24.5
   Maximum Hourly Emission Rate (lbs/hr): 1.848

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 188.9
MAGLC (ug/m3): 583

Pollutant: Ethyl Acetate:
TLV (mg/m3): 1441

Maximum Hourly Emission Rate (lbs/hr): 10.176
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1040
MAGLC (ug/m3): 34310

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 compositions of the materials, or use of new materials that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluation 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 |
|---|---|---|
| P016 - vinegar acetator no.5 | OAC rule 3745-31-05 (A)(3) | 3.4 lbs OC/hr, 14.89 tons OC/yr (See A.I.2.b) |
| | OAC rule 3745-21-07 (G) | See A.I.2.a |
| | | See A.II.1 |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control measures for this emissions unit has been determined to be the use of two condensers operating in parallel which reduce OC emissions from this emissions unit to a mass emission rate not to exceed 3.4 lbs/hr. The two condensers control OC emissions from all six vinegar acetators (emission units P012, P013, P014, P015, P016, & P017).

**2.b** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(1).

2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most

recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The company shall collect and maintain a record of the following information for this emissions unit:

   a. The company identification for each material employed in this emissions unit; and
   b. Documentation on whether or not each material employed is a photochemically reactive material

2. The permittee shall operate and maintain a continuous temperature monitor recorder which measures and records the temperature of the exhaust gases from the condensers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. The average temperature of the exhaust gases from the condensers during each of the (8) 3-hr blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, two condensers, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condensers exceeded the temperature limitation specified above.

3. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the capture (collection) system, either of the two

condensers or monitoring equipment were not in service while the emissions was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 180 days following the first day this emissions unit commences modified operation/s as allowed for by this PTI.

   b. The emission testing shall be conducted to demonstrate compliance with hourly allowable mass emission rate of 3.4 lbs OC from the two condensers (See A.V.1.d).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for OC, Methods 1-4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The test shall be conducted on the stack serving the two condensers. Emission testing shall be conducted in conjunction with the testing required for emission units P012, P013, P014, P015 & P017. Compliance with the 3.4 lb OC/hr emission limitation will be demonstrated by showing that emissions units P012-P017 do not exceed an additive lb/hr OC limit of 20.4. Emission units P012, P013, P014, P015, P016, & P017 shall be operating at their maximum capacity during the test, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

      Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

      Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

      A comprehensive written report on the results of the emissions test(s) shall be signed by

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

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

   a. Emission Limitation: 3.4 lbs OC/hr

      Applicable Compliance Method: The 3.4 lbs OC/hr emission limitation was established by applying a 30% control efficiency for the use of two condensers to a manufacturer's specified emission rate of 4.85 lbs OC/hr. Compliance with the lb/hr limitation shall be shown through testing required in section A.V.1 of the terms and conditions of the permit.

   b. Emission Limitation: 14.89 tons OC/yr

      Applicable Compliance Method: The tons/ye emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hr/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## VI. Miscellaneous Requirements

1. The permittee shall permanently shut down the six existing vinegar generators (emission units; P003, P007, P008, P009, P010, and P011) upon completion of a shakedown period involving the modified and new vinegar acetators (emission units P012-P017). The shakedown period shall not exceed 180 days. The 180 day shakedown period commences when one of the modified and/or new vinegar acetators begins to emit organic compounds. The permittee shall submit written notification of the following at the appropriate times:

   a. date of shakedown period commencement (within 15 days after such date); and

   b. date that all six existing vinegar generators have been permanently shutdown (within 15 days after such date)

   The written notifications are to be sent to:

Ohio EPA, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

## 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 |
|---|---|---|
| P016 - vinegar acetator no.5 | None | None |

**2. Additional Terms and Conditions**

**2.a** None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emission units P012, P013, P014, P015, P016, & P017 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the"worst case" pollutant(s):

   Pollutant: Acetic acid
   TLV (mg/m3): 24.5
   Maximum Hourly Emission Rate (lbs/hr): 1.848
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 188.9
   MAGLC (ug/m3): 583

Pollutant: Ethyl Acetate:
TLV (mg/m3): 1441

Maximum Hourly Emission Rate (lbs/hr): 10.176
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1040
MAGLC (ug/m3): 34310

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 compositions of the materials, or use of new materials that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluation 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 |
|---|---|---|
| P017 - vinegar acetator no.6 | OAC rule 3745-31-05 (A)(3) | 3.4 lbs OC/hr, 14.89 tons OC/yr (See A.I.2.b) |
| | OAC rule 3745-21-07 (G) | See A.I.2.a |
| | | See A.II.1 |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control measures for this emissions unit has been determined to be the use of two condensers operating in parallel which reduce OC emissions from this emissions unit to a mass emission rate not to exceed 3.4 lbs/hr. The two condensers control OC emissions from all six vinegar acetators (emission units P012, P013, P014, P015, P016, & P017).

**2.b** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

**II. Operational Restrictions**

1. The permittee shall not employ any material in this emissions unit that is a photochemically reactive material. "Photochemically reactive material" is defined in OAC rule 3745-21-01 (C)(1).

2. The average temperature of the exhaust gases from the condenser, for any 3-hour block of time, shall not be more than 11 degrees Fahrenheit above the average temperature during the most

recent emission test that demonstrated the emissions unit was in compliance.

## III. Monitoring and/or Recordkeeping Requirements

1. The company shall collect and maintain a record of the following information for this emissions unit:

   a. The company identification for each material employed in this emissions unit; and
   b. Documentation on whether or not each material employed is a photochemically reactive material

2. The permittee shall operate and maintain a continuous temperature monitor recorder which measures and records the temperature of the exhaust gases from the condensers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within $\pm$ 1 percent of the temperature being measured or $\pm$ 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

   The permittee shall collect and record the following information each day:

   a. The average temperature of the exhaust gases from the condensers during each of the (8) 3-hr blocks of time during the day.

   b. A log or record of operating time for the capture (collection) system, two condensers, monitoring equipment, and the associated emissions unit.

## IV. Reporting Requirements

1. The permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) in writing of any monthly record showing the use of a photochemically reactive material. The notification shall include a copy of such record and shall be sent to the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days following the end of the calendar month.

2. The permittee shall submit temperature deviation (excursion) reports that identify all 3-hour blocks of time during which the average temperature of the exhaust gases from the condensers exceeded the temperature limitation specified above.

3. The permittee shall notify the Director (the appropriate District Office or local air agency) in writing of any daily record showing that the capture (collection) system, either of the two

condensers or monitoring equipment were not in service while the emissions was in operation. The notification shall include a copy of such record and shall be sent to the Director (the appropriate District Office or local air agency) within 30 days after the event occurs.

## V. Testing Requirements

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

   a. The emission testing shall be conducted within 180 days following the first day this emissions unit commences modified operation/s as allowed for by this PTI.

   b. The emission testing shall be conducted to demonstrate compliance with hourly allowable mass emission rate of 3.4 lbs OC from the two condensers (See A.V.1.d).

   c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate: for OC, Methods 1-4 and 18, 25, or 25A of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

   d. The test shall be conducted on the stack serving the two condensers. Emission testing shall be conducted in conjunction with the testing required for emission units P012, P013, P014, P015 & P016. Compliance with the 3.4 lb OC/hr emission limitation will be demonstrated by showing that emissions units P012-P017 do not exceed an additive lb/hr OC limit of 20.4. Emission units P012, P013, P014, P015, P016, & P017 shall be operating at their maximum capacity during the test, unless otherwise specified or approved by the Director or appropriate Ohio EPA District Office or local air agency.

      Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

      Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

      A comprehensive written report on the results of the emissions test(s) shall be signed by

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

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

   a. Emission Limitation: 3.4 lbs OC/hr

      Applicable Compliance Method: The 3.4 lbs OC/hr emission limitation was established by applying a 30% control efficiency for the use of two condensers to a manufacturer's specified emission rate of 4.85 lbs OC/hr. Compliance with the lb/hr limitation shall be shown through testing required in section A.V.1 of the terms and conditions of the permit.

   b. Emission Limitation: 14.89 tons OC/yr

      Applicable Compliance Method: The tons/ye emission limitation was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hr/yr and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

## VI. Miscellaneous Requirements

1. The permittee shall permanently shut down the six existing vinegar generators (emission units; P003, P007, P008, P009, P010, and P011) upon completion of a shakedown period involving the modified and new vinegar acetators (emission units P012-P017). The shakedown period shall not exceed 180 days. The 180 day shakedown period commences when one of the modified and/or new vinegar acetators begins to emit organic compounds. The permittee shall submit written notification of the following at the appropriate times:

   a. date of shakedown period commencement (within 15 days after such date); and

   b. date that all six existing vinegar generators have been permanently shutdown (within 15 days after such date)

   The written notifications are to be sent to:

   Ohio EPA, Northwest District Office
   347 North Dunbridge Road
   Bowling Green, OH 43402

## 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 |
|---|---|---|
| P017 - vinegar acetator no.6 | None | None |

**2. Additional Terms and Conditions**

**2.a** None

## II. Operational Restrictions

None

## III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emission units P012, P013, P014, P015, P016, & P017 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the"worst case" pollutant(s):

   Pollutant: Acetic acid
   TLV (mg/m3): 24.5
   Maximum Hourly Emission Rate (lbs/hr): 1.848
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 188.9
   MAGLC (ug/m3): 583

Pollutant: Ethyl Acetate:
TLV (mg/m3): 1441

Maximum Hourly Emission Rate (lbs/hr): 10.176
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1040
MAGLC (ug/m3): 34310

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 compositions of the materials, or use of new materials that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluation 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 |
|---|---|---|
| T003 - 30,600 gallon above ground fixed roof alcohol storage tank ***(modification to existing storage tank to increase throughput)*** | OAC rule 3745-31-05(A)(3) | 0.36 tons OC/ yr (See A.I.2.d)<br><br>Control Requirements (See A.I.2.a)<br><br>See A.I.2.b |
| | OAC rule 3745-21-09(L) | Exempt (See A.I.2.c) |
| | 40 CFR Part 60, Subpart Kb, section 60.116b (a)&(b) | Recordkeeping requirements (See A.III.1) |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of submerged fill.

BAT requirements also include compliance with the terms and conditions of this permit.

**2.b** The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60, Subpart Kb.

**2.c** In accordance with OAC rule 3745-21-09(L)(2), this storage tank is exempt from the requirements of OAC rule 3745-21-09(L)(1) because the tank has a capacity of less than 40,000 gallons.

**2.d** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions

## II. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 1,071,000 gallons.

## III. Monitoring and/or Recordkeeping Requirements

1. In accordance with 40 CFR 60.116b (a) and (b), the owner and operator of this emissions unit shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the emissions unit.

2. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

## IV. Reporting Requirements

1. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report which states that no deviations occurred during the calendar year. These reports shall be submitted by January 31 of each year.

2. Pursuant to the New Source Performance Standards (NSPS), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

   a. modification date (no later than 30 days after such date); and
   b. date of performance testing (if required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   Lazarus Government Center
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

   Ohio EPA, Northwest District Office
   347 North Dunbridge Road
   Bowling Green, OH 43402

## V. Testing Requirements

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

   a. Emission Limitation: 0.36 tons OC/yr

      Applicable Compliance Method: The ton per year emission limitation was established by working and breathing loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 1,071,000 gallons. Therefore provided compliance is shown with the maximum annual throughput, compliance with the ton.

## VI. Miscellaneous Requirements

The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements for 40 CFR Part 60 are also federally enforceable.

**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 |
|---|---|---|
| T003 - 30,600 gallon above ground fixed roof alcohol storage tank (modification to existing storage tank to increase throughput) | None | None |

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

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

None

**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 |
|---|---|---|
| T004 - 12,000 gallon above ground fixed roof alcohol storage tank (modification to existing storage tank to increase throughput) | OAC rule 3745-31-05(A)(3) | 0.14 tons OC/ yr (See A.I.2.d)<br><br>Control Requirements (See A.I.2.a)<br><br>See A.I.2.b |
| | OAC rule 3745-21-09(L) | Exempt (See A.I.2.c) |
| | 40 CFR Part 60, Subpart Kb, section 60.116b (a)&(b) | Recordkeeping requirements (See A.III.1) |

**2. Additional Terms and Conditions**

**2.a** Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of submerged fill.

BAT requirements also include compliance with the terms and conditions of this permit.

**2.b** The requirements of this rule also include compliance with the requirements of 40 CFR, Part 60, Subpart Kb.

**2.c** In accordance with OAC rule 3745-21-09(L)(2), this storage tank is exempt from the requirements of OAC rule 3745-21-09(L)(1) because the tank has a capacity of less than 40,000 gallons.

**2.d** For purposes of practical/federal enforceability, OC limitations effectively limit VOC emissions.

## II. Operational Restrictions

1. The permittee shall not exceed an annual material throughput rate of 420,000 gallons.

## III. Monitoring and/or Recordkeeping Requirements

1. In accordance with 40 CFR 60.116b (a) and (b), the owner and operator of this emissions unit shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the emissions unit.

2. The permittee shall maintain monthly records of the amount of (gallons per month and total gallons, to date for the calendar year) of material throughput for this emissions unit.

## IV. Reporting Requirements

1. The permittee shall submit annual deviation (excursion) reports that identify any and all exceedances of the annual material throughput limitation, as well as the corrective actions taken to achieve compliance. If no deviations occurred during the calendar year, the permittee shall submit an annual report which states that no deviations occurred during the calendar year. These reports shall be submitted by January 31 of each year.

2. Pursuant to the New Source Performance Standards (NSPS), the source owner/operator is hereby advised of the requirements to report the following at the appropriate times:

   a. modification date (no later than 30 days after such date); and
   b. date of performance testing (if required, at least 30 days prior to testing).

   Reports are to be sent to:

   Ohio Environmental Protection Agency
   DAPC - Permit Management Unit
   Lazarus Government Center
   P.O. Box 1049
   Columbus, OH 43216-1049

   and

Ohio EPA, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

## V. Testing Requirements

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

   a. Emission Limitation: 0.14 tons OC/yr

      Applicable Compliance Method: The ton per year emission limitation was established by working and breathing loss calculations as determined by U.S. EPA Tanks 4.0 program with a maximum annual material throughput of 420,000 gallons. Therefore provided compliance is shown with the maximum annual throughput, compliance with the ton

## VI. Miscellaneous Requirements

The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements for 40 CFR Part 60 are also federally enforceable.

**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 |
|---|---|---|
| T004 - 12,000 gallon above ground fixed roof alcohol storage tank (modification to existing storage tank to increase throughput) | None | None |

**2. Additional Terms and Conditions**

**2.a** None

**II. Operational Restrictions**

None

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

None

**IV. Reporting Requirements**

None

**V. Testing Requirements**

None

**VI. Miscellaneous Requirements**

None