

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

Permit To Install: 14-05851

**A. Source Description**

Twin Rivers Technologies Natural Ingredients, Inc. (TNI), through this air permit to install (PTI), is requesting a modification in order to limit facility-wide methanol emissions to under 10 tons per year (TPY) thus making this a synthetic minor air PTI in order to opt out of Title V operating requirements. The emissions units involved in this air PTI are the Oleochemical Process (emissions unit P004) and Methanol Load Out (emissions unit J001). TNI has requested an increase in the hours of operation for emissions unit J001.

**B. Facility Emissions and Attainment Status**

TNI is located in Hamilton County, Ohio, which is currently non-attainment for volatile organic compounds (VOCs) that is, the 8-hour ozone standard, non-attainment for particulate matter less than 2.5 microns in diameter (PM2.5), and attainment for all other criteria pollutants.

The facility is a major stationary source due to its potential to emit a single hazardous air pollutant (HAP) in excess of 10 tons per year. That HAP is methanol. All criteria pollutants are below major stationary source emission threshold levels. TNI, through this air PTI, is requesting a modification in order to limit their facility-wide methanol emissions to under 10 TPY thus making this a synthetic minor air PTI in order to opt out of Title V operating permitting requirements.

The permittee has requested that this air permit be issued as a synthetic minor air PTI with federally enforceable emission limitations on OC(methanol) in order to opt out of Title V operating permitting requirements.

**C. Source Emissions**

Through this synthetic minor air PTI, the annual emissions are 5.4 TPY of OC (methanol) from emissions unit P004 and 0.75 TPY from emissions unit J001. The total facility-wide methanol emissions will be 9.84 TPY.

**D. Conclusion**

TNI will be issued a synthetic minor air PTI for this project by means of applying a short term methanol emission rate limitation to emissions unit P004. Compliance will be demonstrated on a rolling 12-month basis. Daily monitoring, record keeping and calculations, along with quarterly deviation reports for emissions unit P004, will be required in order to demonstrate compliance. Through federally enforceable terms and conditions and record keeping requirements, the methanol emissions will be limited to under 10 TPY therefore allowing TNI to opt out of their Title V operating permitting requirements.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL  
HAMILTON COUNTY**

**CERTIFIED MAIL**

Street Address:

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

Mailing Address:

Lazarus Gov.  
Center

**Application No:** 14-05851

**Fac ID:** 1431074118

**DATE:** 10/3/2006

Twin Rivers Technologies  
Mike Glinski  
780 Washington Street  
Quincy, MA 02169

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$2250** will be due. Please do not submit any payment now.

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

Sincerely,

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

CC: USEPA

HCDES

OH-KY-IN Reg Council of Governments

KY

IN

## HAMILTON COUNTY

### PUBLIC NOTICE

#### ISSUANCE OF DRAFT PERMIT TO INSTALL **14-05851** FOR AN AIR CONTAMINANT SOURCE FOR **Twin Rivers Technologies**

On 10/3/2006 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Twin Rivers Technologies**, located at **4700 Este Avenue, Cincinnati, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 14-05851:

#### **Oleochemical Process Modification.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Brad Miller, Hamilton County Department of Environmental Services, 250 William Howard Taft Pkwy,  
Cincinnati, OH 45219-2660 [(513)946-7777]



**Permit To Install  
Terms and Conditions**

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

**DRAFT PERMIT TO INSTALL 14-05851**

Application Number: 14-05851  
Facility ID: 1431074118  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Twin Rivers Technologies  
Person to Contact: Mike Glinski  
Address: 780 Washington Street  
Quincy, MA 02169

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**4700 Este Avenue  
Cincinnati, Ohio**

Description of proposed emissions unit(s):  
**Oleochemical Process Modification.**

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

Twin Rivers Technologies

PTI Application: 14-05851

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

Facility ID: 1431074118

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

### **3. Records Retention Requirements**

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

### **4. Inspections and Information Requests**

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections,

**Twin Rivers Technologies**

**Facility ID: 1431074118**

**PTI Application: 14-05851**

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

conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

**5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

**6. Permit Transfers**

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

**7. Air Pollution Nuisance**

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

**8. 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.

**9. 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

**Twin Rivers Technologies**  
**PTI Application: 14-05851**

**Facility ID: 1431074118**

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

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.

**10. 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.

**11. Applicability**

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.

**12. 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.

**13. Source Operation and Operating Permit Requirements After Completion of Construction**

**Twin Rivers Technologies**

**PTI Application: 14-05851**

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

**Facility ID: 1431074118**

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this

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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 emissions unit(s) covered by this permit.

**14. 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.

**15. 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.

**B. Permit to Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
OC	6.66

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**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - (J001) - Methanol Load Out Chapter 31 Modification**

<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
OAC rule 3745-35-07(B)(1) Voluntary Limitations to Avoid Title V Permit Requirements	See term A.2.a.
OAC rule 3745-31-05(A)(3)	Organic Compound (OC) emissions shall not exceed 3.0 pounds per hour * and 0.75 ton per year.  See term B.1.  * The hourly emission limitation is based upon the emission unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with this limitation.
OAC rule 3745-21-07(E)	Exempt, See term A.2.c.

**2. Additional Terms and Conditions**

- 2.a The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P004 (Oleochemical Process), J001 (Methanol Loadout), fat traps, fugitive leaks, all miscellaneous tanks, sumps and small air contaminant sources shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs, including HAP acid mists. Compliance with the above limitations shall be based on a rolling, 12-month summation. The permittee has existing records to demonstrate compliance with these limitations upon issuance of this permit.
- 2.b Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by compliance with the emission limitations, the use of submerged fill, compliance

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with the operating limitation specified in this permit and compliance with the facility-wide HAP emission limitations.

- 2.c** This emissions unit currently does not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). It is, therefore, exempt from all emission limitations and control requirements contained in OAC rule 3745-21-07.

**B. Operational Restrictions**

1. The maximum annual operating hours for this emissions unit shall not exceed 500 hours.

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

1. The permittee shall maintain monthly records of the operating hours for each month.
2. The permittee shall collect and record the following information each month:
  - a. the company identification of each liquid organic material employed in this emissions unit; and
  - b. a record of each liquid organic material employed in this emissions unit indicating whether or not the liquid organic material is photochemically reactive as identified in OAC rule 3745-21-01(C)(5).
3. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.a:
  - a. the company identification of each organic material containing a HAP(s) employed in this emissions unit;
  - b. the number of pounds of organic material employed;
  - c. the individual Hazardous Air Pollutant (HAP) content for each HAP for each material employed in pounds of individual HAP per pound of material;
  - d. the total combined HAP content of each material employed in pounds of combined HAPs per pound of material;
  - e. the total individual HAP emissions for each HAP from all materials employed in

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pounds or tons per month. This calculation shall be based on the emissions calculation methodology submitted in permit-to-install application number 14-05851 submitted on June 1, 2006;

- f. the total combined HAP emissions from all materials employed in pounds or tons per month. This calculation shall be based on the emissions calculation methodology submitted in permit to install application number 14-05851 submitted on June 1, 2006;
- g. the updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- h. the updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

**D. Reporting Requirements**

1. The permittee shall submit annual reports which identify all exceedances of the hours of operation limitation identified in term B.1. The reports shall be submitted to the Hamilton County Department of Environmental Services by January 31 of each year. If no exceedances occurred, the permittee shall state so in the report.
2. Prior to employing any photochemically reactive material in this emissions unit the permittee shall provide written notification to the Hamilton County Department of Environmental Services. Such notification shall include information sufficient to determine compliance with the emission limits and/or control requirements specified in OAC rule 3745-21-07(G). This notification, at a minimum, shall include the company identification of the new material to be employed, and the maximum amount to be used, in pounds per hour, and pounds per day.
3. The permittee shall notify the Hamilton County Department of Environmental Services of any exceedance of the HAP emission limitations set forth in term A.2.a. The reports shall be submitted to the Hamilton County Department of Environmental Services by January 31, April 30, July 31 and October 31 of each year and shall cover the previous three calendar months (October through December, January through March, April

Emissions Unit ID: **J001**

through June and July through September, respectively.)

If no exceedances occurred, the permittee shall state so in the report.

4. Deviation reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

#### **E. Testing Requirements**

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

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- a. Emission Limitations:  
Organic compound (OC) emissions shall not exceed 3.0 pounds per hour and 0.75 ton per year.

## Applicable Compliance Method:

Compliance with the pounds per hour and tons per year OC emissions limitations in section A.1 shall be demonstrated by calculations using the emission factors from US EPA AP-42 Fifth Edition, Chapter 5.2, (Draft section, June 1999) and the permittee-provided production data contained in PTI application number 14-05851, as submitted on June 1, 2006.

- b. Emission Limitations:  
The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P004 (Oleochemical Process), J001 (Methanol Loadout), fat traps, fugitive leaks, all miscellaneous tanks, sumps and small air contaminant sources shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs, including HAP acid mists.

## Applicable Compliance Method:

Compliance with the HAP emission limitations in term A.2.a shall be demonstrated by the record keeping in term C.3.

2. Compliance with the operating hours limitation in term B.1 shall be demonstrated by the record keeping in term C.1.
3. Compliance with OAC rule 3745-21-07 shall be demonstrated by the record keeping in term C.2.

**F. Miscellaneous Requirements**

1. The terms and conditions of this air permit to install shall supersede the terms and conditions in air permit-to-install number 14-04993 issued August 16, 2000, for emissions unit J001.
2. Modeling to demonstrate compliance with the Ohio EPA's "Air Toxic Policy" was not necessary because the emissions unit's maximum annual emissions for each toxic pollutant will be less than 1.0 ton. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit to install prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that a new permit to

**Emissions Unit ID: J001**

install application would be required for an emissions unit if changes in the composition of the materials or use of new materials would cause the emissions of any pollutant that has a listed Threshold Limit Value (TLV), as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices"), to increase to above 1.0 ton per year.

3. The following terms and conditions of air permit-to-install number 14-05851 are federally enforceable: A, B, C, D and E.

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**PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**

**A. 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 - (P004) - Oleochemical Process Administrative Modification**

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-35-07(B)(1) Synthetic Minor to Avoid Title V Permit Requirements	See term A.2.b.
OAC rule 3745-31-05(A)(3)	Organic Compound (OC) emissions shall not exceed 1.35 pounds per hour* and 5.91 tons per year including emissions from natural gas combustion.  See terms A.2.a, B.1 and B.2.  * The hourly emission limitation is based upon the emission unit's Potential to Emit (PTE). Therefore, no hourly records are required to demonstrate compliance with this limitation.
OAC rule 3745-21-07(G)	Exempt, See term A.2.d.

**2. Additional Terms and Conditions**

- 2.a All the organic compound emissions from this emissions unit shall be vented to a packed bed scrubber at all times followed by a thermal oxidizer under certain operating scenarios as listed in term B.2.
- 2.b The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P004 (Oleochemical Process), J001 (Methanol Loadout), fat traps, fugitive leaks, all miscellaneous tanks, sumps and small air contaminant sources shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs, including HAP acid mists. Compliance with the above limitations shall be based on a rolling, 12-month summation. The permittee has existing records to

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demonstrate compliance with these limitations upon issuance of this permit.

- 2.c** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated by the use of a packed bed scrubber, thermal oxidizer, compliance with the emission limitations and compliance with the facility-wide HAP emissions limitations.
- 2.d** This emissions unit currently does not employ any photochemically reactive materials as defined in OAC rule 3745-21-01(C)(5). It is, therefore, exempt from all emission limitations and control requirements contained in OAC rule 3745-21-07(G).

**B. Operational Restrictions**

- 1. All organic compound emissions from this emissions unit shall be vented to only a packed bed scrubber during the following plant operating scenarios:
  - a. esters production without liquid olefin production;
  - b. esters production with hourly average liquid olefin production less than 30,000 lbs/hour; and
  - c. hourly average liquid olefin production less than 30,000 lbs/hr without esters production.
- 2. All organic compound emissions from this emissions unit shall be vented to a thermal oxidizer following the packed bed scrubber during the following plant operating scenarios:
  - a. esters production with hourly average liquid olefin production greater than 30,000 lbs/hr; and
  - b. hourly average liquid olefin production, alone, greater than 30,000 lbs/hr.

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

- 1. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the static pressure drop across the scrubber and the scrubber water flow rate during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and

Emissions Unit ID: **P004**

operating manual(s). The permittee shall record the static pressure drop across the scrubber and the scrubber water flow rate on a daily basis.

Whenever the monitored value for the static pressure drop across the scrubber and the scrubber water flow rate deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and

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the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable ranges specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the static pressure drop across the scrubber and the scrubber water flow rate readings immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable static pressure drop across the packed be scrubber is at least 2 inches of water or greater. The acceptable scrubber water flow rate is at least 8 gallons per minute or greater.

These ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the ranges based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

2. The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the combustion temperature within the thermal incinerator during operation of this emissions unit, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the combustion temperature within the thermal incinerator on continuous basis.

Whenever the monitored value for the combustion temperature within the thermal incinerator deviates from the range specified below, the permittee shall promptly

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investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period of time (in minutes) during which there was a deviation, the combustion temperature within the thermal incinerator immediately after the corrective action, and the names of the personnel who performed the work. Investigation and records required by this paragraph does not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The acceptable range for the average combustion temperature within the thermal incinerator for any 3-hour block of time when the emissions unit is in operation shall not be more than 50 degrees Fahrenheit below the average temperature during the most recent performance test that demonstrated the emissions unit was in compliance.

The range is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the range based upon information obtained during future organic compound emission tests that demonstrate compliance with the allowable organic compound emission rate for this emissions unit. In addition, approved revisions to the range will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

3. The permittee shall collect and record the following information each month for the emissions units identified in term and condition A.2.b:
  - a. the company identification of each organic material containing a HAP(s) employed in this emissions unit;
  - b. the number of pounds of organic material employed;

Emissions Unit ID: **P004**

- c. the individual Hazardous Air Pollutant (HAP) content for each HAP for each material employed in pounds of individual HAP per pound of material;
- d. the total combined HAP content of each material employed in pounds of combined HAPs per pound of material;
- e. the total individual HAP emissions for each HAP from all materials employed in pounds or tons per month. This calculation shall be based on the emissions calculation methodology submitted in permit-to-install application number 14-05851 submitted on June 1, 2006;
- f. the total combined HAP emissions from all materials employed in pounds or tons per month. This calculation shall be based on the emissions calculation methodology submitted in permit to install application number 14-05851 submitted on June 1, 2006;
- g. the updated rolling, 12-month summation for individual HAP emissions for each HAP, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months; and
- h. the updated rolling, 12-month summation for total combined HAP emissions, in pounds or tons. This shall include the information for the current month and the preceding eleven calendar months.

\* A listing of the HAPs can be found in Section 112(b) of the Clean Air Act or can be obtained by contacting the Hamilton County Department of Environmental Services. This information does not have to be kept on a individual emissions unit basis.

4. The permittee shall collect and record the following information each day:
  - a. the operating scenario and control device being utilized;
  - b. the average hourly liquid olean production rate;
  - c. the time and date the thermal oxidizer was brought online; and
  - d. the time and date the thermal oxidizer was taken offline.
5. The permittee shall collect and record the following information each month:
  - a. the company identification of each liquid organic material employed in this emissions unit; and

Emissions Unit ID: **P004**

- b. a record of each liquid organic material employed in this emissions unit indicating whether or not the liquid organic material is photochemically reactive as identified in OAC rule 3745-21-01(C)(5).
6. The permit to install for emissions unit P004 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust systems, 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 Ground-Level Concentration (MAGLC).

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The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methanol (CAS 67-56-1)

TLV ( $\mu\text{g}/\text{m}^3$ ):262

Maximum Hourly Emission Rate (lbs/hr): 1.24 lbs methanol/hr

Predicted 1-Hour Maximum Ground-Level Concentration ( $\mu\text{g}/\text{m}^3$ ): 1813

MAGLC ( $\mu\text{g}/\text{m}^3$ ): 6240

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 or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant

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not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

**D. Reporting Requirements**

1. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the static pressure drop across the scrubber and the scrubber water flow rate were outside of the acceptable range;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the static pressure drop across the scrubber and the scrubber water flow rate into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30,

Emissions Unit ID: **P004**

July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

2. The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of this emissions unit:
  - a. each period of time when the combustion temperature within the thermal incinerator was outside of the acceptable range;
  - b. an identification of each incident of deviation described in (a) where a prompt investigation was not conducted;
  - c. an identification of each incident of deviation described in (a) where prompt corrective action, that would bring the combustion temperature within the thermal incinerator into compliance with the acceptable range, was determined to be necessary and was not taken; and
  - d. an identification of each incident of deviation described in (a) where proper records were not maintained for the investigation and/or the corrective action.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

3. Prior to employing any photochemically reactive material in this emissions unit, the permittee shall provide written notification to the appropriate Ohio EPA field office. Such notification shall include information sufficient to determine compliance with the emission limits and/or control requirements specified in OAC rule 3745-21-07(G). This notification, at a minimum, shall include the company identification of the new material to be employed, the solvent composition of the material, and the maximum amount to be used, in pounds per hour, and pounds per day.
4. The permittee shall submit quarterly reports that indicate any time the average hourly liquid clean production was above 30,000 lbs/hour and the thermal oxidizer was not brought on line. This notification shall include the date and time of the occurrence along with the total time the process ran above 30,000 lbs/hour without the thermal oxidizer. These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.
5. Deviation reports shall be submitted in accordance with the reporting requirements specified in Part 1 - General Terms and Conditions, Section A of this permit.

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**E. Testing Requirements**

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

- a. Emission Limitations:

- Organic Compound (OC) emissions shall not exceed 1.35 pounds per hour\* and 5.91 tons per year including emissions from natural gas combustion.

- Applicable Compliance Methods:

- Compliance with the lbs of OC/hr emission limitation was demonstrated through mass emission testing conducted on February 15, 2000. The average emission rate recorded during the emission test was 0.73 lb of OC/hr.

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If required, the permittee shall demonstrate compliance with this mass emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 to determine the hourly mass emission rate.

The hourly mass emission rate shall be multiplied by the maximum hours of operation per year and then divided by 2000 to determine the TPY emission rate.

b. Emission Limitations:

The actual emissions of Hazardous Air Pollutants (HAPs), as identified in Section 112(b) of Title III of the Clean Air Act from emissions units P004 (Oleochemical Process), J001 (Methanol Loadout), fat traps, fugitive leaks, all miscellaneous tanks, sumps and small air contaminant sources shall not exceed 9.9 TPY for any single HAP and 24.9 TPY for any combination of HAPs, including HAP acid mists. Compliance with the above limitations shall be based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the HAP emission limitations in term A.2.b shall be demonstrated by the record keeping in term C.3.

2. Compliance with OAC rule 3745-21-07 shall be demonstrated by the record keeping in term C.5.
3. Compliance with the limitation in term A.2.a shall be demonstrated by the record keeping in term C.4.

**F. Miscellaneous Requirements**

1. The terms and conditions of this air permit to install shall supercede the terms and conditions of air permit-to-install number 14-04063 issued December 6, 2001, for emissions unit P004.
2. The following terms and conditions of air permit-to-install number 14-05851 are federally enforceable: A, B, C.1 - C.5, D and E.