



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
50 West Town Street, Suite 700
Columbus, OH 43215

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

Mailing Address:

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

10/22/07

CERTIFIED MAIL

**RE: Final Title V Administrative Permit Amendment Chapter
3745-77 permit**

14-31-07-0035
Cognis Corp
Mike Flaherty
4900 Este Avenue
Cincinnati, OH 45232-1491

Dear Mike Flaherty:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging 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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact Hamilton County Dept. of Environmental Services.

Sincerely,

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

cc: Hamilton County Dept. of Environmental Services
File, DAPC PIER



State of Ohio Environmental Protection Agency

FINAL TITLE V ADMINISTRATIVE PERMIT AMENDMENT

Effective Date: 05/20/03	Expiration Date: 05/20/08	Modification Issue Date: 10/22/07
---------------------------------	----------------------------------	--

This document constitutes issuance of a Title V permit for Facility ID: 14-31-07-0035 to:

Cognis Corp
4900 Este Avenue
Cincinnati, OH 45232-1491

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B013 (BUILDING 56 THERMINOL HEATER) Gas-fired Therminol heater supporting esterification processes.	acids, fatty alcohols, and esters.	P801 (FATTY ALCOHOL PLANT FUGITIVE EMISSIONS) Fugitive emissions of methanol from fatty alcohol process units.
P016 (M-102 ESTERIFIER) Esterification and transesterification of fatty acids, fatty alcohols, and esters.	P057 (FATTY ALCOHOL UNITS 102/104) Transesterification and fractionation of crude methyl esters.	T008 (751T09 METHANOL STORAGE TANK) Methanol storage for fatty alcohol process.
P024 (M-35 ESTERIFIER) Esterification and transesterification of fatty acids, fatty alcohols, and esters.	P058 (FATTY ALCOHOL UNITS X5/107) Hydrogenation of methyl esters and fractionation of fatty alcohols.	T009 (751T10 METHANOL STORAGE TANK) Methanol storage for fatty alcohol process.
P025 (M-45 ESTERIFIER) Esterification and transesterification of fatty acids, fatty alcohols, and esters.	P059 (FATTY ALCOHOL UNITS 103/106/108) Recovery and purification of methanol for in-process reuse and recycle.	Z026 (BAROMETRIC COOLING TOWER, BUILDING 56) Cooling tower servicing direct-contact heat exchangers in Ester II.
P051 (M-122 ESTERIFIER) Esterification and transesterification of fatty	P064 (ESTER STILL AND REFINING) Distillation and refining of ester raw materials, intermediates, and products.	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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

Hamilton County Dept. of Environmental Services
250 William Howard Taft Rd
Cincinnati, OH 45219-2660
(513) 946-7777

Ohio Environmental Protection Agency

Chris Korleski
Director

PART I - GENERAL TERMS AND CONDITIONS

A. *State and Federally Enforceable Section*

1. **Monitoring and Related Record Keeping 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

(a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule

3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i), (ii) and (iii))

- (b) Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record keeping, and reporting requirements. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

- 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

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 of any emissions unit(s) 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 OAC rule 3745-15-06, 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).

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iii))

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.

(Authority for term: OAC rule 3745-77-07(A)(4))

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.

(Authority for term: OAC rule 3745-77-07(A)(5))

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

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, in accordance with A.10 below. 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.

(Authority for term: OAC rule 3745-77-07(A)(7))

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.

(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

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

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

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

(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

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

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the

Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

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

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

- i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond

more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

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

(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

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

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

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

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

(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

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

(This term is provided for informational purposes only.)

18. Insignificant Activities

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

(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

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

(Authority for term: OAC rule 3745-77-07(A)(1))

20. 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.

(Authority for term: OAC rule 3745-77-07(A)(1))

B. *State Only Enforceable Section*

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

2. 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.

3. Inspections and Information Requests

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

4. 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).

5. 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.

6. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers, 40 CFR Part 63, Subpart DDDDD. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
2. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:
 - a. for a new affected source, the anticipated date of startup of operation;
 - b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
 - c. any existing federal, State, or local limitations or requirements applicable to the affected source;
 - d. for each affected emission point or group of affected emission points, an identification of control technology in place;
 - e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
 - f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

The Part II application for a MACT determination may, but is not required to, contain the following information:

- a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
- b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
- c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.

A. State and Federally Enforceable Section (continued)

3. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:
 - a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
 - i. the name and mailing address of the permittee;
 - ii. the physical location of the source if it is different from the mailing address;
 - iii. identification of the relevant MACT standard and the source's compliance date;
 - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
 - v. a statement confirming the facility is a major source for HAPs.
 - b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:
 - i. the methods used to determine compliance;
 - ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;
 - iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;
 - iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;
 - v. an analysis demonstrating whether the affected source is a major source or an area source;
 - vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and
 - vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.
4. 40 CFR Part 68 is an applicable requirement for this facility. The permittee shall comply with the Risk Management Plan submitted to the Hamilton County Department of Environmental Services.

B. State Only Enforceable Section

1. The following insignificant emissions units are located at this facility:

B001 Building 56 Dowtherm Vaporizer
B021 Building 39 Dowtherm Vaporizer
P022 M-22 Esterifier
P052 M-152 Esterifier
P054 APG(R) Surfactants Production
P055 APG(R) Surfactants Loading
P056 APG(R) Surfactants Carbohydrates Unloading
P060 Fatty Alcohol Unit 109
P069 Methyl Ester Loading
P098 Lubricants Blending and Drying
T005 751T17 Ethanol Storage Tank
T028 Y-259 Ester Fuels Tank
T029 M-40 Ester Fuels Tank
Z020 600-Gallon Multipurpose Research Reactor
Z021 Pilot Plant Hot Oil Heater
Z022 Pilot Plant Still Firing

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BUILDING 56 THERMINOL HEATER (B013)

Activity Description: Gas-fired Therminol heater supporting esterification processes.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
15 MMBtu/hr Natural Gas-Fired Boiler	OAC rule 3745-17-07(A)(1)	Visible particulate emissions (PE) shall not exceed 20 percent opacity, as a six-minute average, except as specified by rule.
	OAC rule 3745-17-10(B)(1)	0.020 lb PE/MMBtu of actual heat input.

2. Additional Terms and Conditions

- 2.a OAC rule 3745-18-06 does not establish a sulfur dioxide emission limitation for this "fuel burning equipment" because it only employs natural gas as fuel.

II. Operational Restrictions

- The permittee shall burn only natural gas in this emissions unit.

III. Monitoring and/or Record Keeping Requirements

- For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements

- The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

V. Testing Requirements

- Compliance with the emission limits for visible emissions as established in OAC rule 3745-17-07(A) shall be demonstrated by methods outlined in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

2. Emission Limitations-
0.020 lb of PE/MMBtu of actual heat input

Applicable compliance method:

For the use of natural gas, compliance may be determined by multiplying the hourly gas burning capacity of the emissions unit (MM cu. ft/hr) by the AP-42, Fifth Edition, Section 1.4, Table 1.4-2 (revised 7/98) emission factor of 1.9 lbs filterable PE/MM cu. ft, and then dividing by the maximum hourly heat input capacity of the emissions unit (MMBtu/hr).

If required, the permittee shall demonstrate compliance with the lb/MMBtu emission limitation above pursuant to OAC rule 3745-17-03(B)(9).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: M-102 ESTERIFIER (P016)

Activity Description: Esterification and transesterification of fatty acids, fatty alcohols, and esters.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Esterifier	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 2.a 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: M-35 ESTERIFIER (P024)

Activity Description: Esterification and transesterification of fatty acids, fatty alcohols, and esters.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Esterifier	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 2.a 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: M-45 ESTERIFIER (P025)

Activity Description: Esterification and transesterification of fatty acids, fatty alcohols, and esters.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Esterifier	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 2.a 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: M-122 ESTERIFIER (P051)

Activity Description: Esterification and transesterification of fatty acids, fatty alcohols, and esters.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Esterifier	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 2.a 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FATTY ALCOHOL UNITS 102/104 (P057)

Activity Description: Transesterification and fractionation of crude methyl esters.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Transesterification and fractionation of crude methyl esters with scrubber	OAC rule 3745-31-05(A)(3) (PTI 14-4154)	7.46 lbs/hr organic compounds (OC) from the outlet of scrubber PK107P* 0.23 lb/hr fugitive OC emissions*
	OAC rule 3745-21-07(G)	*The lbs/hr emission limitations established in PTI 14-4154 were based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping or reporting requirements are necessary to ensure compliance with these emission limits. See A.I.2.a through A.I.2.c. See A.I.2.d.

2. Additional Terms and Conditions

- 2.a** Process vents 102V05, 102V06, 102V07, 104F01, 104F02, 103V02, and 103F01 shall be vented to scrubber PK107P.
- 2.b** Tank vents 752T02, 752T03, 752T13, and 752T15 shall be vented to scrubber PK107P.
- 2.c** Scrubber system PK107P shall have a minimum control efficiency of 80% by weight for organic compounds.
- 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).

II. Operational Restrictions

1. The scrubber water flow rate through the venturi portion of PK107 shall be continuously maintained at a value of not less than 75 gallons per minute until a new minimum water flow rate is established during an emission test that demonstrates the emissions unit is in compliance with the allowable mass emission rate and control efficiency. After the completion of the emission test, the minimum water flow rate shall be that value recorded during the most recent emission test which demonstrated compliance.

The scrubber water flow rate through the packed bed portion of PK107 shall be continuously maintained at a value of not less than 25 gallons per minute until a new minimum water flow rate is established during an emission test that demonstrates the emissions unit is in compliance with the allowable mass emission rate and control efficiency. After the completion of the emission test, the minimum water flow rate shall be that value recorded during the most recent emission test which demonstrated compliance.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flow rate for both the venturi and packed bed portions of scrubber PK107P while the emissions unit is in operation. The monitoring devices and any recorders 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 scrubber water flow rates for both the venturi and packed bed portions of the scrubber system on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rates were not maintained at or above the required levels.
2. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.
3. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I-General Term and Condition A.1.c.ii.

V. Testing Requirements

1. 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 6 months after issuance of the final Title V permit to operate. Future emissions testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emissions testing.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for organic compounds from the outlet of the packed bed scrubber, and the overall control efficiency for scrubber PK107P.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate and control efficiencies for organic compounds:

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or other approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The mass rate of emissions shall be determined using Methods 1-4 and 25 of 40 CFR Part 60, Appendix A.

The test(s) shall be conducted while this emissions unit and emissions units P058 and P059 are operating at or near their maximum capacities unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission tests.

Personnel from the Hamilton County Department of Environmental Services 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

Transesterification and fractionation of crude methyl esters with scrubber

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials employed (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each toxic 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: Methanol
 TLV (ug/m3): 262
 Maximum Hourly Emission Rate (lbs/hr): 7.63
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 127.9
 MAGLC (ug/m3): 6,238

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

Physical changes to or 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 Toxics 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 Toxics Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee shall not make the change. Changes that can affect the parameters used in the "Air Toxics 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 with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxics Policy" will be satisfied with the above changes, 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 evaluations to determine that the changed emissions unit will satisfy the "Air Toxics 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 Toxics Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FATTY ALCOHOL UNITS X5/107 (P058)

Activity Description: Hydrogenation of methyl esters and fractionation of fatty alcohols.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Hydrogenation of methyl esters and fractionation of fatty alcohols with scrubber and flare	OAC rule 3745-31-05(A)(3) (PTI 14-1897)	3.53 lbs/hr organic compounds (OC) from the outlet of scrubber PK107P*
	OAC rule 3745-21-07(G)	*The lbs/hr emission limitations established in PTI 14-1897 were based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping or reporting requirements are necessary to ensure compliance with these emission limits. See A.I.2.a through A.I.2.d. See A.I.2.e.

2. Additional Terms and Conditions

- 2.a** Process vents 106V01, 106V02, 106F01, 107F01, and 107V02 shall be vented to scrubber PK107P.
Process vents 105V01, 105H04 and 105H05 shall be vented to flare PK104P.
- 2.b** Tank vents 751T07 and 751T08 shall be vented to scrubber PK107P.
- 2.c** Scrubber PK107P shall have a minimum control efficiency of 80% by weight for organic compounds.
- 2.d** Flare PK104P shall have a minimum destruction efficiency of 99.9% by weight.
- 2.e** 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).

II. Operational Restrictions

1. The scrubber water flow rate through the venturi portion of PK107 shall be continuously maintained at a value of not less than 75 gallons per minute until a new minimum water flow rate is established during an emission test that demonstrates the emissions unit is in compliance with the allowable mass emission rate and control efficiency. After the completion of the emission test, the minimum water flow rate shall be that value recorded during the most recent emission test which demonstrated compliance.

The scrubber water flow rate through the packed bed portion of PK107 shall be continuously maintained at a value of not less than 25 gallons per minute until a new minimum water flow rate is established during an emission test that demonstrates the emissions unit is in compliance with the allowable mass emission rate and control efficiency. After the completion of the emission test, the minimum water flow rate shall be that value recorded during the most recent emission test which demonstrated compliance.

2. A pilot flame shall be maintained at all times in the flare's pilot light burner.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flow rate for both the venturi and packed bed portions of scrubber PK107P while the emissions unit is in operation. The monitoring devices and any recorders 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 scrubber water flow rates for both the venturi and packed bed portions of the scrubber system on a daily basis.
 - b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.
2. Within 3 months after final permit issuance, permittee shall properly install, operate, and maintain a device to continuously monitor the presence of a flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.

The permittee shall record the following information each day:

- a. All periods during which there was no pilot flame.
- b. The operating times for the flare, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rates were not maintained at or above the required levels.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods during which the flare or pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.
3. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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 quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I-General Term and Condition A.1.c.ii.

V. Testing Requirements

1. 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 6 months after issuance of the final Title V permit to operate. Future emissions testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emissions testing.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for organic compounds from the outlet of the scrubber and the overall control efficiency for scrubber PK107P.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate and control efficiencies for organic compounds:

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or other approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The mass rate of emissions shall be determined using Methods 1-4 and 25 of 40 CFR Part 60, Appendix A.

The test(s) shall be conducted while this emissions unit and emissions units P057 and P059 are operating at or near their maximum capacities unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission tests.

Personnel from the Hamilton County Department of Environmental Services 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

2. Emission Limitation:
The flare shall be operated with a 99.9% destruction efficiency.

Applicable Compliance Method:

Based on source testing for similar sources, compliance with the 99.9% destruction efficiency requirement will be assumed.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FATTY ALCOHOL UNITS 103/106/108 (P059)

Activity Description: Recovery and purification of methanol for in-process reuse and recycle.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Methanol purification with scrubber	OAC rule 3745-31-05(A)(3) (PTI 14-4154)	0.18 lb/hr organic compounds (OC) from the outlet of scrubber PK107P* 0.013 lb/hr fugitive OC emissions* *The lbs/hr emission limitations established in PTI 14-4154 were based on the emissions unit's potential to emit. Therefore, no monitoring, record keeping or reporting requirements are necessary to ensure compliance with these emission limits.
	OAC rule 3745-21-07(G)	See A.I.2.a through A.I.2.c. See A.I.2.d.

2. Additional Terms and Conditions

- 2.a Process vents 108V01, 108V02, and 108V04 shall be vented to scrubber PK107P.
- 2.b Tank vents 751T02 and 751T07 shall be vented to scrubber PK107P.
- 2.c Scrubber PK107P shall have a minimum control efficiency of 80% by weight for organic compounds.
- 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).

II. Operational Restrictions

1. The scrubber water flow rate through the venturi portion of PK107 shall be continuously maintained at a value of not less than 75 gallons per minute until a new minimum water flow rate is established during an emission test that demonstrates the emissions unit is in compliance with the allowable mass emission rate and control efficiency. After the completion of the emission test, the minimum water flow rate shall be that value recorded during the most recent emission test which demonstrated compliance.

The scrubber water flow rate through the packed bed portion of PK107 shall be continuously maintained at a value of not less than 25 gallons per minute until a new minimum water flow rate is established during an emission test that demonstrates the emissions unit is in compliance with the allowable mass emission rate and control efficiency. After the completion of the emission test, the minimum water flow rate shall be that value recorded during the most recent emission test which demonstrated compliance.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flow rate for both the venturi and packed bed portions of scrubber PK107P while the emissions unit is in operation. The monitoring devices and any recorders 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 scrubber water flow rates for both the venturi and packed bed portions of the scrubber system on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rates were not maintained at or above the required levels.
2. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.
3. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I-General Term and Condition A.1.c.ii.

V. Testing Requirements

1. 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 6 months after issuance of the final Title V permit to operate. Future emissions testing shall be conducted at the frequency specified in Ohio EPA Engineering Guide #16 based on the results of the initial emissions testing.
 - b. The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rate for organic compounds from the outlet of the scrubber and the overall control efficiency for the scrubber PK107P.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate and control efficiencies for organic compounds:

The control efficiency (i.e., the percent reduction in mass emissions between the inlet and outlet of the control system) shall be determined in accordance with the test methods and procedures specified in OAC rule 3745-21-10 or other approved alternative test protocol. The test methods and procedures selected shall be based on a consideration of the diversity of the organic species present and their total concentration, and on a consideration of the potential presence of interfering gases.

The mass rate of emissions shall be determined using Methods 1-4 and 25 of 40 CFR Part 60, Appendix A.

The test(s) shall be conducted while this emissions unit and emissions units P057 and P058 are operating at or near their maximum capacities unless otherwise specified or approved by the Hamilton County Department of Environmental Services.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Hamilton County Department of Environmental Services. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Hamilton County Department of Environmental Services refusal to accept the results of the emission tests.

Personnel from the Hamilton County Department of Environmental Services 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 tests shall be signed by the person or persons responsible for the tests and submitted to the Hamilton County Department of Environmental Services within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Hamilton County Department of Environmental Services.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

Methanol purification with scrubber

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit was evaluated based on the actual materials employed (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. Ohio EPA's "Review of New Sources of Air Toxics Emissions" policy ("Air Toxics Policy") was applied for each toxic 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:

Pollutant: Methanol
 TLV (ug/m3): 262
 Maximum Hourly Emission Rate (lbs/hr): 7.63
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 127.9
 MAGLC (ug/m3): 6,238

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

Physical changes to or 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 Toxics 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 Toxics Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxics Policy" will not be satisfied, the permittee shall not make the change. Changes that can affect the parameters used in the "Air Toxics 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 with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxics Policy" will be satisfied with the above changes, 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 evaluations to determine that the changed emissions unit will satisfy the "Air Toxics 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 Toxics Policy"; and
- c. when the computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxics Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: ESTER STILL AND REFINING (P064)

Activity Description: Distillation and refining of ester raw materials, intermediates, and products.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Ester Still and Refining	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 2.a 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

1. Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: FATTY ALCOHOL PLANT FUGITIVE EMISSIONS (P801)
Activity Description: Fugitive emissions of methanol from fatty alcohol process units.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Fatty Alcohol Process	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

- Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 751T09 METHANOL STORAGE TANK (T008)
Activity Description: Methanol storage for fatty alcohol process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
29,700-Gallon Methanol Storage Tank with Packed Tower Scrubber	OAC rule 3745-31-05(A)(3) (PTI 14-1897)	1.18 TPY of organic compound (OC) emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(D). See A.I.2.a.
	40 CFR Part 60, Subpart Kb	See A.III.1.
	OAC rule 3745-21-07(D)	The permittee shall employ a submerged fill pipe when loading volatile photochemically reactive materials.

2. Additional Terms and Conditions

- 2.a The permittee shall operate and maintain a packed tower scrubber in a manner that will reduce the emissions from this emissions unit by a minimum of 80% by weight.

II. Operational Restrictions

1. The scrubber water flow rate through the venturi portion of PK107 shall be continuously maintained at a value of not less than 75 gallons per minute, or the flow rate recorded during the most recent stack test which demonstrated compliance, at all times while the emissions unit is in operation.

The scrubber water flow rate for the packed bed portion of PK107 shall be continuously maintained at a value of not less than 25 gallons per hour, or the flow rate recorded during the most recent stack test which demonstrated compliance, at all times while the emissions unit is in operation.
2. The maximum annual throughput of methanol shall not exceed that stated in the Title V permit application submitted on November 12, 1996.

III. Monitoring and/or Record Keeping Requirements

1. In accordance with 40 CFR 60.116b(a) and (b), the owner and operator of this storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.
2. The permittee shall maintain monthly and annual (based on a calendar year) records of the methanol throughput in gallons.
3. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flow rate for both the venturi and packed bed portions of scrubber PK107P while the emissions unit is in operation. The monitoring devices and any recorders 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 scrubber water flow rates for both the venturi and packed bed portion of the scrubber system on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit annual reports that specify the annual methanol throughput.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rates were not maintained at or above the required levels.
3. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I-General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitation of 1.18 TPY of OC shall be determined by calculating the uncontrolled OC emission rate by employing the appropriate emission factors from AP-42 (Fixed Roof Storage Tanks) and then multiplying this value by 1 minus (the overall control efficiency of the scrubber/100%).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: 751T10 METHANOL STORAGE TANK (T009)
Activity Description: Methanol storage for fatty alcohol process.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
29,700-Gallon Methanol Storage Tank with Packed Tower Scrubber	OAC rule 3745-31-05(A)(3) (PTI 14-1897)	1.18 TPY of organic compound (OC) emissions The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-07(D). See A.I.2.a.
	40 CFR Part 60, Subpart Kb	See A.III.1.
	OAC rule 3745-21-07(D)	The permittee shall employ a submerged fill pipe when loading volatile photochemically reactive materials.

2. Additional Terms and Conditions

- 2.a The permittee shall operate and maintain a packed tower scrubber in a manner that will reduce the emissions from this emissions unit by a minimum of 80% by weight.

II. Operational Restrictions

1. The scrubber water flow rate through the venturi portion of PK107 shall be continuously maintained at a value of not less than 75 gallons per minute, or the flow rate recorded during the most recent stack test which demonstrated compliance, at all times while the emissions unit is in operation.

The scrubber water flow rate for the packed bed portion of PK107 shall be continuously maintained at a value of not less than 25 gallons per hour, or the flow rate recorded during the most recent stack test which demonstrated compliance, at all times while the emissions unit is in operation.
2. The maximum annual throughput of methanol shall not exceed that stated in the Title V permit application submitted on November 12, 1996.

III. Monitoring and/or Record Keeping Requirements

1. In accordance with 40 CFR 60.116b(a) and (b), the owner and operator of this storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.
2. The permittee shall maintain monthly and annual (based on a calendar year) records of the methanol throughput in gallons.
3. The permittee shall properly operate and maintain equipment to continuously monitor the scrubber water flow rate for both the venturi and packed bed portions of scrubber PK107P while the emissions unit is in operation. The monitoring devices and any recorders 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 scrubber water flow rates for both the venturi and packed bed portion of the scrubber system on a daily basis.
- b. The operating times for the capture (collection) system, control device, monitoring equipment, and the associated emissions unit.

IV. Reporting Requirements

1. The permittee shall submit annual reports that specify the annual methanol throughput.
2. The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which the scrubber water flow rates were not maintained at or above the required levels.
3. The quarterly deviation reports shall be submitted in accordance with the reporting requirements specified in Part I-General Term and Condition A.1.c.ii.

V. Testing Requirements

1. Compliance with the emission limitation of 1.18 TPY of OC shall be determined by calculating the uncontrolled OC emission rate by employing the appropriate emission factors from AP-42 (Fixed Roof Storage Tanks) and then multiplying this value by 1 minus (the overall control efficiency of the scrubber/100%).

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: BAROMETRIC COOLING TOWER, BUILDING 56 (Z026)

Activity Description: Cooling tower servicing direct-contact heat exchangers in Ester II.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Barometric cooling tower	OAC rule 3745-21-07(G)	See A.I.2.

2. Additional Terms and Conditions

- 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).

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

- Prior to employing any photochemically reactive material in this emissions unit, including any cleanup material that is a photochemically reactive material, 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.

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
---	---	--

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

THIS IS THE LAST PAGE OF THE PERMIT
