State of Ohio Environmental Protection Agency

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Columbus, Ohio 43215

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P.O. Box 1049
Columbus, OH 43216-1049

7/21/2009

Certified Mail

No	TOXIC REVIEW
No	PSD
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No	CEMS
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Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Mr. Mourad Yesayan
GOE LIMA, LLC
2485 Houx Parkway
Lima, OH 45804

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0302020341
Permit Number: P0105072
Permit Type: Initial Installation
County: Allen

Dear Permit Holder:

Enclosed please find a final Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of $70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

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 Compliance Assistance and Pollution Prevention at (614) 644-3469. If you have any questions regarding this permit, please contact the Ohio EPA DAPC, Northwest District Office. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page http://www.epa.state.oh.us/dapc.

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 *Via E-Mail Notification*
Ohio EPA DAPC, Northwest District Office

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

FINAL

Air Pollution Permit-to-Install
for
GOE LIMA, LLC

Facility ID: 0302020341
Permit Number: P0105072
Permit Type: Initial Installation
Issued: 7/21/2009
Effective: 7/21/2009

State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Air Pollution Permit-to-Install
for
GOE LIMA, LLC

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Authorization

Facility ID: 0302020341
Facility Description: Industrial Organic Chemicals, n.e.c
Application Number(s): M0000496
Permit Number: P0105072
Permit Description: Administrative modification of PTI 03-16271 issued 8/8/06 for ethanol production operations (emissions unit P002) to replace VOC scrubber control requirements with thermal oxidation.
Permit Type: Initial Installation
Permit Fee: $625.00
Issue Date: 7/21/2009
Effective Date: 7/21/2009

This document constitutes issuance to:

GOE LIMA, LLC
1227 EAST HANTHORN ROAD
Lima, OH 45804

Of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402
(419)352-8461

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Chris Korleski
Director

Authorization (continued)

Permit Number: P0105072
Permit Description: Administrative modification of PTI 03-16271 issued 8/8/06 for ethanol production operations (emissions unit P002) to replace VOC scrubber control requirements with thermal oxidation.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

Emissions Unit ID:	**P002**
Company Equipment ID:	Ethanol Production Operations
Superseded Permit Number:	03-16271
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A. 2.a), Severability Clause

(2) Standard Term and Condition A. 3.c) through A. 3.e) General Requirements

(3) Standard Term and Condition A. 6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A. 9., Reporting Requirements

(5) Standard Term and Condition A. 10., Applicability

(6) Standard Term and Condition A. 11.b) through A. 11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A. 14., Public Disclosure

(8) Standard Term and Condition A. 15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A. 16., Fees

(10) Standard Term and Condition A. 17., Permit Transfers

2. Severability Clause

a) 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.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. 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:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

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

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northwest District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northwest District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northwest District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

6. Compliance Requirements

a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

c) 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:

(1) 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.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) 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.

d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northwest District Office 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:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) 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.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. 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.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northwest District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northwest District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted

(i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

11. Construction of New Sources(s) and Authorization to Install

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed through completion of the annual PER covering the last period of operation of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the PER covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

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

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Ohio EPA DAPC, Northwest District Office must be notified in writing of any transfer of this permit.

18. 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.

19. 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.

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

C. Emissions Unit Terms and Conditions

1. P002, Ethanol Production Operations including Fermenters, Beer Well & Column Distillers, Stripper, Rectifier, and Dryers.

Operations, Property and/or Equipment Description:

Ethanol production operations, including fermenters, beer well & column distillers, stripper, rectifier, and dryers.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) d)(9)

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-21-09 (DD)	See b)(2)d. and g)(1)
b.	40 CFR Part 60 Subpart VV	See b)(2)d. and g)(1)
c.	OAC rule 3745-17-11 (B)(1)	See b)(2)c.
d.	OAC rule 3745-17-07 (A)	See b)(2)f.
e.	OAC rule 3745-21-08 (B)	See b)(2)b.
f.	OAC rule 3745-18-06 (E)(2)	See b)(2)c.
g.	OAC rule 3745-31-05 (A)(3)(a)	Control Requirements, see b)(2)a. See b)(2)e. No visible fugitive particulate emissions (PE) from any building openings (associated with this emissions unit). <u>CO2 Scrubber Stack</u> 13.23 lbs Volatile Organic Compounds (VOC)/hr, 58.0 tons VOC/yr <u>Thermal Oxidizer Stack</u> 1.02 lbs PE/hr, 4.5 tons PE/yr 5.62 lbs VOC/hr, 24.62 tons VOC/yr 5.88 lbs NOx/hr, 25.8 tons NOx/yr 9.88 lbs CO/hr, 43.3 tons CO/yr 9.13 lbs SO2/hr, 40.0 tons SO2/yr

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		visible PE shall not exceed 10% opacity, as a 6-minute average from the thermal oxidizer stack. <u>fugitive VOC emissions</u> 4.5 tons VOC/yr See b)(2)a.iv. and b)(2)d.

(2) Additional Terms and Conditions

a. Best available technology (BAT) control requirements for this emissions unit has been determined to be use of the following:

i. a high efficiency wet scrubber (CO2 scrubber) for VOC control on the fermentation process. The scrubber shall meet a minimum control efficiency of 99% for VOC emissions;

ii. a regenerative thermal oxidizer meeting a minimum control efficiency of 98% for PE emissions and 95% for VOC emissions;

iii. firing only natural gas and the use of low NOx burners in the dryers. BAT also includes operation of the dryers to be continuously maintained at or below a value to be determined by design information, and or manufacturer's data [see condition g)(3) for the establishment of the temperature of the dryers]; and

iv. implementation of a fugitive leak detection and repair program (LDAR) for all the miscellaneous process equipment the associated with this emissions unit.

b. The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3)(a) in this permit to install.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

c. The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).

d. The permittee shall include the appropriate process equipment and regulated components in a site fugitive Leak Detection and Repair (LDAR) program. The

LDAR program shall comply with the appropriate provisions (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09(DD) Leaks from process units that produce organic chemicals, and 40 CFR 60 Subpart VV (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry).

e. The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(DD), and 40 CFR 60 Subpart VV.

f. The visible PE limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3)(a).

c) Operational Restrictions

(1) The permittee shall burn only natural gas, propane, or butane in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

(1) For each day during which the permittee burns a fuel other than natural gas, propane, or butane, the permittee shall maintain a record of the type and quantity of fuel combusted in this emissions unit.

(2) The acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance. Until compliance testing has been conducted, the thermal oxidizer shall be operated and maintained in accordance with the manufacturer's recommendations, instructions, and the operating manual.

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

(3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measures and records the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. Units shall be in degrees Fahrenheit. The accuracy for each thermocouple, monitor, and recorder shall be guaranteed by the manufacturer to be within ± 1 percent of the temperature being measured or ± 5 degrees Fahrenheit, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and the operating manuals, with any modifications deemed necessary by the permittee. The acceptable temperature setting shall be based upon the manufacturer=s specifications until such time as any required performance testing is conducted and the appropriate temperature range is established to

demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information each day the emissions unit(s) is/are in operation:

a. all 3-hour blocks of time, when the emissions unit(s) controlled by the thermal oxidizer was/were in operation, during which the average combustion temperature within the thermal oxidizer was more than 50 degrees Fahrenheit below the average temperature measured during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance; and

b. a log (date and total time) of the downtime or bypass of the capture (collection) system and thermal oxidizer, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of three years.

(4) The acceptable range/limit for the pressure drop across the CO2 scrubber and the scrubber liquid flow rate shall be based upon the manufacturer=s specifications until such time as any required performance testing is conducted and the appropriate range or limit for each parameter is established to demonstrate compliance.

These range(s) and/or limit(s) for the pressure drop and liquid flow rate are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted range or limit for the pressure drop or liquid flow rate based upon information obtained during future performance tests that demonstrate compliance with the allowable VOC emission rate for this/these emissions unit(s). In addition, approved revisions to the range or limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of an administrative modification.

(5) The permittee shall properly install, operate, and maintain equipment to continuously monitor the pressure drop across the scrubber (in pounds per square inch, gauge), and the scrubber liquid flow rate (in gallons per minute), including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer=s recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. The acceptable pressure drop and liquid flow rate and shall be based upon the manufacturer=s specifications until such time as any required performance testing is conducted and the appropriate range for each parameter is established to demonstrate compliance. Following compliance testing, the permittee shall collect and record the following information on a once per shift basis when the emissions unit(s) is/are in operation:

a. the pressure drop across the scrubber, in inches of water;

b. the scrubber liquid flow rate, in gallons per minute; and

c. a log (date and total time) of the downtime or bypass of the scrubber, and/or downtime of the monitoring equipment, when the associated emissions unit(s) was/were in operation.

These records shall be maintained at the facility for a period of three years.

(6) The permittee shall operate and maintain a continuous temperature monitor and recorder which measures and records the temperature within the dryers when the emissions unit is in operation. Units shall be in degrees Fahrenheit. The monitoring and recording devices shall be capable of accurately measuring the desired parameter. The temperature monitor and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modification deemed necessary by the permittee. The permittee shall collect and record all time periods during which the maximum temperature within the dryers, when the emissions unit is in operation, is more than the maximum temperature requirement in section b)(2)a.

(7) Whenever the following monitored parameters deviate from the range(s) or limit(s) established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation(s):

a. average combustion temperature within the thermal oxidizer;

b. pressure drop across CO2 scrubber;

c. CO2 scrubber liquid flow rate;

and/or

d. maximum operating temperature for each dryer.

(8) The permittee shall maintain records of the following information for each investigation required in d)(7):

a. the date and time the deviation began;

b. the magnitude of the deviation at that time;

c. the date the investigation was conducted;

d. the name(s) of the personnel who conducted the investigation; and

e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

a. a description of the corrective action;

b. the date corrective action was completed;

c. the date and time the deviation ended;

d. the total period of time (in minutes) during which there was a deviation;

e. the temperature readings immediately after the corrective action was implemented; and

f. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

(9) Permit to install 03-16271 for Emission Units J001, P002, P004, P903, and T001-T004 were evaluated based on the actual materials and the design parameters of each 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 Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emissions units 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: Hexane
TLV (mg/m^3): 176.23
Maximum Hourly Emission Rate (lbs/hr): 0.54
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 17.12
MAGLC (ug/m^3): 4,196

Pollutant: Aliphatic Hydrocarbons
TLV (mg/m^3): 1803.0
Maximum Hourly Emission Rate (lbs/hr): 1.57
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 49.45
MAGLC (ug/m^3): 42,928

Pollutant: Pentane
TLV (mg/m^3): 1475.5
Maximum Hourly Emission Rate (lbs/hr): 0.79
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 24.72
MAGLC (ug/m^3): 35,130

Pollutant: Ethanol
TLV (mg/m^3): 1884.3
Maximum Hourly Emission Rate (lbs/hr): 17.15
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 1101.10
MAGLC (ug/m^3): 44,863

Pollutant: Acetaldehyde
TLV (mg/m^3): 45.04
Maximum Hourly Emission Rate (lbs/hr): 0.93
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m^3): 157.68
MAGLC (ug/m^3): 1,072

Physical changes to or changes in the method of operation of the emissions units after installation or modification could affect the parameters used to determine whether or not the “Air Toxic Policy” is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the “Air Toxic Policy” will still be still satisfied. If, upon evaluation, the permittee determines that the “Air Toxic Policy” will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the “Air Toxic Policy” include the following:

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of an toxic air contaminant listed in OAC rule 3745-114-01 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 toxic air contaminant listed in OAC rule 3745-114-01 that was proposed in the application and modeled; and

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

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change

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

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

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

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

(10) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible fugitive PE from any egress points (i.e., building windows, doors, roof monitors, etc.) associated with this emissions unit. The presence or absence of any visible fugitive emissions shall be noted in an operations log, including the date and time the daily check was performed. If visible emissions are observed, the permittee shall also note the following in the operations log:

a. the location and color of the emissions;

b. the total duration of any visible emission incident; and

c. any corrective actions taken to minimize or eliminate the visible emissions.

e) Reporting Requirements

(1) Annual Permit Evaluation Report (PER) forms will be mailed to the permittee at the end of the reporting period specified in the Authorization section of this permit. The permittee shall submit the PER in the form and manner provided by the director by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(2) The permittee shall identify in the annual permit evaluation report the following information concerning the operations of the thermal oxidizer, CO2 scrubber, and dryers during the 12-month reporting period for this/these emissions unit(s):

a. each period of time (start time and date, and end time and date) when the following parameters were outside of the range(s) or limit(s) specified by the manufacturer and/or outside of the acceptable range(s) or limit(s) following any required compliance demonstration:

i. average combustion temperature within the thermal oxidizer;

ii. pressure drop across the CO2 scrubber;

iii. liquid flow rate for the CO2 scrubber;

and/or

iv. maximum operating temperature for each dryer.

b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to:

i. the thermal oxidizer;

and/or

ii. The CO2 scrubber;

c. each incident of deviation described in Aa@ or “b” (above) where a prompt investigation was not conducted;

d. each incident of deviation described in Aa@ or “b” where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and

e. each incident of deviation described in Aa@ or "b" where proper records were not maintained for the investigation and/or the corrective action(s).

(3) The permittee shall identify the following information in the annual permit evaluation report in accordance with the monitoring requirements for visible emissions in d)(10):

a. all days during which any visible fugitive particulate emissions were observed from the area immediately above the capture system serving this emissions unit; and

b. any corrective actions taken to eliminate the visible fugitive particulate emissions.

f) 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 180 days after initial startup of such emissions unit. The testing time frame(s) specified may be amended or waived for cause upon prior request of, and written approval of, the Ohio EPA Northwest District Office.

b. The emission testing shall be conducted to demonstrate compliance with the VOC mass emissions limitations from the CO2 scrubber and the NOx, CO, VOC, SO_2, and PE mass emissions limitations from the thermal oxidizer controlling this emissions unit. Emission testing shall also be conducted to demonstrate compliance with the control efficiency limitation for VOCs from the CO2 and for the control efficiency limitation for PE and VOCs from the thermal oxidizer controlling this emissions unit.

c. The following test methods shall be employed to demonstrate compliance with the above emissions limitations: for PE, Methods 1-5 of 40 CFR Part 60, Appendix A (including the back half of the sampling train); for NOx, Methods 1-4 and 7 of 40 CFR Part 60, Appendix A; for CO, Methods 1-4 and 10 of 40 CFR Part 60, Appendix A for SO2, Methods 1-4 and 6 of 40 CFR Part 60, Appendix A and for VOC Methods 1-4 and 18, 25 or 25a of 40 CFR Part 60, Appendix A. The "Midwest Scaling Protocol for the Measurement of VOC Mass Emissions", Dated 8/04 shall be used in conjunction with the test methods and procedures specified in Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for determining VOC mass emissions. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO. The test method(s) which must be employed to demonstrate compliance with the control efficiencies are specified below.

d. 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 Methods 18, 25, or 25A of 40 CFR Part 60, Appendix A for VOC emissions. 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.

e. the test(s) shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Ohio EPA, NWDO.

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

g. Personnel from the Ohio EPA, NWDO 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.

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

(2) Future testing requirements shall be conducted in accordance with applicable rules, policies, etc. (i.e. Engineering Guide #16, OAC rule 3745-15-04, etc.). Future testing requirements may be amended or waived for cause upon prior request of, and written approval of, the Ohio EPA Northwest District Office.

(3) Compliance with the emission limitations in Section b)(1) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

<u>CO2 Scrubber Stack</u>: 13.23 lbs VOC/hr, 58.0 tons VOC/yr

<u>Applicable Compliance Method:</u> Compliance with the hourly mass emission limitations for VOC shall be demonstrated by the performance testing as described in condition f)(1).

The annual emission limitation for VOC was developed by multiplying the respective hourly emission limitation by maximum operating schedule of 8760 hours/year, and dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

b. <u>Emission Limitation:</u>

<u>Thermal Oxidizer Stack</u>:
1.02 lbs PE/hr, 4.5 tons PE/yr
5.62 lbs VOC/hr, 24.62 tons VOC/yr
5.88 lbs NOx/hr, 25.8 tons NOx/yr

9.88 lbs CO/hr, 43.3 tons CO/yr
9.13 lbs SO2/hr, 40.0 tons SO2/yr

Applicable Compliance Method:
Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition f)(1). The annual emission limitations were developed by multiplying the respective hourly emission limitation by the maximum operating schedule of 8760 hours/year, and then dividing by 2000 lbs/ton. Therefore, if compliance is shown with the hourly limitation, compliance with the annual limitation will be assumed.

c. Emission Limitation:
4.5 tons fugitive VOC/yr

Applicable Compliance Method:
The annual emission limitation was developed by multiplying the respective emission factors and control efficiencies of all the proposed equipment subject to the LDAR program, as submitted by the permittee in PTI application #03-16271, Table 4-E. Therefore, if compliance is shown with the LDAR program as described in condition b)(2)d. and g).1., compliance with the annual limitation will be assumed.

d. Emission Limitation:
visible PE shall not exceed 10% opacity, as a 6-minute average (thermal oxidizer stack)

Applicable Compliance Method:
If required, compliance with the visible PE limitations shall be determined in accordance with the test methods and procedures in USEPA Method 9, which is located in 40 CFR Part 60, Appendix A.

e. Emission Limitation: No visible fugitive PE from any building openings (associated with this emissions unit).

Applicable Compliance Method:
If required, compliance with the visible PE limitation shall be determined in accordance with the test methods and procedures in USEPA Method 22, which is located in 40 CFR Part 60, Appendix A.

g) Miscellaneous Requirements

(1) Within 180 days of the start up of this emissions unit, the permittee shall develop an onsite fugitive LDAR program. At a minimum, the program shall include all the appropriate process equipment and regulated components that are subject to this program and clearly identify how the permittee will comply with the appropriate provisions (includes operational restrictions, monitoring and recordkeeping, reporting, and testing) of OAC rule 3745-21-09 (DD), and 40 CFR 60 Subpart VV.

(2) Within 180 days of the start up of this emissions unit, the permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan. This plan must be

maintained on site and is subject to review and approval of the OEPA, Northwest District Office.

(3) The permittee shall submit information specifying the maximum operating temperature for each dryer [see b)(2)a.iii]. The information shall be submitted in association with the "Intent to Test" notification specified in section f)(1).f.

(4) This permit action shall supercede the permit requirements for emissions unit P002 as contained in PTI 03-16271 issued on August 8, 2006.