



John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

5/31/2013

Jack Purdy  
PK Farm Fuels, LLC  
12290 Irwin Road  
Irwin, OH 43029

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0511010139  
Permit Number: P0114496  
Permit Type: Renewal  
County: Champaign

Certified Mail

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTIO is a final action of the Director 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, made payable to "Ohio Treasurer Josh Mandel," 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  
77 South High Street, 17th Floor  
Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

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. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/dapc/permitsurvey.aspx](http://www.epa.ohio.gov/dapc/permitsurvey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Southwest District Office at (937)285-6357 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



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

Cc: Ohio EPA-SWDO



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install and Operate  
for  
PK Farm Fuels, LLC**

Facility ID:	0511010139
Permit Number:	P0114496
Permit Type:	Renewal
Issued:	5/31/2013
Effective:	5/31/2013
Expiration:	5/31/2023





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
PK Farm Fuels, LLC

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**Final Permit-to-Install and Operate**  
PK Farm Fuels, LLC  
**Permit Number:** P0114496  
**Facility ID:** 0511010139  
**Effective Date:** 5/31/2013

## Authorization

Facility ID: 0511010139  
Application Number(s): A0047783  
Permit Number: P0114496  
Permit Description: PTIO renewal permit for biodiesel production facility consisting of two (2) reactors, process vessels and a condenser.  
Permit Type: Renewal  
Permit Fee: \$0.00  
Issue Date: 5/31/2013  
Effective Date: 5/31/2013  
Expiration Date: 5/31/2023  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

PK Farm Fuels, LLC  
1766 State Route 559  
Woodstock, OH 43084

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

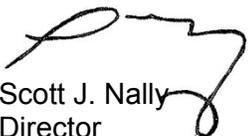
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southwest District Office  
401 East Fifth Street  
Dayton, OH 45402  
(937)285-6357

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (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 described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Scott J. Nally  
Director



**Final Permit-to-Install and Operate**

PK Farm Fuels, LLC

**Permit Number:** P0114496

**Facility ID:** 0511010139

**Effective Date:** 5/31/2013

## **Authorization (continued)**

Permit Number: P0114496

Permit Description: PTIO renewal permit for biodiesel production facility consisting of two (2) reactors, process vessels and a condenser.

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

**Emissions Unit ID:**

**P801**

Company Equipment ID:

5,000,000 gallon per year Bio-Diesel Production

Superseded Permit Number:

P0088719

General Permit Category and Type:

Not Applicable



**Final Permit-to-Install and Operate**  
PK Farm Fuels, LLC  
**Permit Number:** P0114496  
**Facility ID:** 0511010139  
**Effective Date:** 5/31/2013

## **A. Standard Terms and Conditions**



**1. What does this permit-to-install and operate ("PTIO") allow me to do?**

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

**2. Who is responsible for complying with this permit?**

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

**3. What records must I keep under this permit?**

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

**4. What are my permit fees and when do I pay them?**

There are two fees associated with permitted air contaminant sources in Ohio:

PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

**5. When does my PTIO expire, and when do I need to submit my renewal application?**

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

**6. What happens to this permit if my project is delayed or I do not install or modify my source?**

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

**7. What reports must I submit under this permit?**

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

**8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?**

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

**9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?**

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



**10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?**

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the Ohio EPA DAPC, Southwest District Office in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

**11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?**

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

**12. What happens if one or more emissions units operated under this permit is/are shut down permanently?**

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means 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.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting<sup>1</sup> a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emissions unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

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<sup>1</sup>Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



**13. Can I transfer this permit to a new owner or operator?**

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

**14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?**

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

**15. What happens if a portion of this permit is determined to be invalid?**

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



**Final Permit-to-Install and Operate**  
PK Farm Fuels, LLC  
**Permit Number:** P0114496  
**Facility ID:** 0511010139  
**Effective Date:** 5/31/2013

## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install and Operate**

PK Farm Fuels, LLC

**Permit Number:** P0114496

**Facility ID:** 0511010139

**Effective Date:** 5/31/2013

1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
  - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
    - (1) None.
  - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
    - (1) None.



**Final Permit-to-Install and Operate**  
PK Farm Fuels, LLC  
**Permit Number:** P0114496  
**Facility ID:** 0511010139  
**Effective Date:** 5/31/2013

## **C. Emissions Unit Terms and Conditions**



**1. P801, 5,000,000 gallon per year Bio-Diesel Production**

**Operations, Property and/or Equipment Description:**

5,000,000 gallon per year Bio-Diesel Production-Fugitive Emissions from Liquid Storage and Process Equipment Leaks

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. d)(3).

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(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 are identified below. 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 3745-31-05(D)	The fugitive organic compound (OC) emissions from this emissions unit shall not exceed 6.44 tons per rolling 12-month period.
b.	40 CFR Part 60, Subpart VV	See Section b)(2)a, b)(2)b and b)(2)e
c.	OAC rule 3745-21-09(DD)	See Section b)(2)a and b)(2)c
d.	OAC rule 3745-21-07(D)(2)	All storage tanks for volatile photochemically reactive material shall be equipped with submerged fill pipe.
e.	OAC rule 3745-17-10(B)(1)	The particulate emissions from the use of fuel oil or bio-diesel shall not exceed 0.040 pound per million Btu of actual heat input.
f.	OAC rule 3745-17-07(A)(1)(b)	Visible particulate emissions from the exhaust stack shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
g.	OAC rule 3745-114-01	Ohio Toxic Policy



(2) Additional Terms and Conditions

- a. The permittee shall implement a volatile organic compound (VOC) leak detection and repair program in accordance with 40 CFR Part 60.480 through 60.489 and OAC rule 3745-21-09(DD) within 60 days after achieving maximum production and not more than 180 days after initial start up.
- b. Any equipment in vacuum service is excluded from compliance with the leak detection and repair requirements of 40 CFR Part 60.482-2 through 60.482-10 if it is identified as required in 40 CFR Part 60.486(e)(5).
- c. Any equipment in vacuum service is excluded from compliance with the requirements of OAC rule 3745-21-09(DD)(2) to (DD)(6) according to OAC rule 3745-21-09(DD)(17)(b)(ii).
- d. The permittee shall employ best available control measures for the emissions for the purpose of ensuring compliance with the above mentioned applicable requirements. The permittee has committed to implementing a Leak Detection and Repair (LDAR) program to ensure compliance.
- e. The permittee shall include the appropriate process equipment and regulated components in the LDAR program. The LDAR program shall comply with the appropriate provisions (including operational restrictions, monitoring and record keeping reporting and testing) of OAC rule 3745-21-09(DD) (Leaks from Process Units that Produce Synthetic Organic Chemicals) and 40 CFR Part 60, Subpart VV (Standards for Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry). In the case of overlapping provisions, the permittee shall comply with the more stringent requirement.
- f. The annual allowable emission rate is based on the maximum design capacity of the process at the annual production rate of 6,000,000 gallons of bio diesel. Since the annual emission rate is based on the maximum design capacity of the process, no operational restrictions, monitoring or record keeping requirements are necessary to ensure that this emissions unit does not exceed its annual allowable emission rate.

c) Operational Restrictions

- (1) The methyl alcohol storage tanks shall be equipped with a submerged fill pipe.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall implement a leak detection and repair plan and keep records in accordance with the requirements of 40 CFR Part 60.482 and 60.486.
- (2) The permittee shall implement a leak detection and repair plan and keep records in accordance with the requirements of OAC rules 3745-21-09(DD)(2) to (DD)(6) and 21-09(DD)(14).



- (3) The permit to install for this emissions unit (P801) was evaluated based on the actual materials (typically coatings) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the ISCST3 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC) calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A". The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Methyl Alcohol

TLV (mg/m<sup>3</sup>): 262.1

Maximum Hourly Emission Rate (lbs/hr): 1.47

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m<sup>3</sup>): 0.22

MAGLC (mg/m<sup>3</sup>): 62.4

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

- a. Changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
  - b. Changes in the 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.).
- (4) 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.



- (5) 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. 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.
  
- e) Reporting Requirements
  - (1) The permittee shall submit semiannual reports in accordance with the requirements of 40 CFR Part 60.487.
  - (2) The permittee shall submit semiannual reports in accordance with the requirements of OAC rule 3745-21-09(DD)(2)(mm) and OAC 3745-21-09(DD)(15).
  
- f) Testing Requirements
  - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
    - a. Emission Limitation:

The fugitive OC emissions from this emissions unit shall not exceed 6.44 tons per year.

Applicable Compliance Method:

Compliance with annual fugitive OC emissions limitation shall be based upon the following equation:

$$\text{AER} = \text{LER} + \text{Pc} + \text{Sr}$$

where:

AER = Annual Emission Rate, in tons/yr;  
LER = Leak Emission Rate, in tons/yr\*;  
Pc = Products of combustion, in tons/yr\*\*; and  
Sr = Solvent reclamation, in tons/yr\*\*\*.

\* Leak Emission Rate is based on the following equation:

$$\text{LER} = [\text{Sum of } ( \text{E}_f \times \text{WF}_{\text{toc}} \times \text{N} )] \times 8760 \text{ hr/yr} \times 1 \text{ ton}/2000 \text{ lbs}$$



where:

Ef = Emission factor from "EPA Protocol for Equipment Estimates"(EPA 453/R-95-017), Table 2-1, in lbs/hr/source, (0.009 for valves, 0.044 for pump seals, 0.044 for agitator seals, 0.004 connectors, 0.004 open-ended lines, and 0.033 sampling connections);  
 WF toc = Average fraction of total organic in stream, (8.85% by weight, from Emission Activity Sheet); and  
 N = Number of each specific type of equipment, (46 valves, 6 pump seals, 3 agitator seals, 19 connectors, 2 open-ended lines, and 6 sampling connectors).

\*\* Products of combustion is based on the following equation:

$$Pc = [(Ef \times 0.004 \text{ 1000gals/hr}) \times 8760 \text{ hrs/yr} \times 1 \text{ ton/2000 lbs}] \times 2 \text{ boilers}$$

where:

Ef = Emission factor, lbs/ 1000gals, (0.556, diesel fuel employed).

\*\*\* Solvent Reclamation:

$$Sr = [\text{Sum of } (Ef \times Mp)] \times 8760 \text{ hr/yr} \times 1 \text{ ton/2000 lbs}$$

where:

Ef = Emission factor from AP-42 Table 4.7-1, in lbs/ton processed, (0.02 tanks, 3.3 condenser vent, 0.2 spillage, and 0.72 loading); and  
 Mp = Amount of methanol processed, in tons/hr, (0.323 tons/hr, from Emission Activity Sheet).

b. Emission Limitation:

The particulate emissions from the use of fuel oil or bio-diesel in this emissions unit shall not exceed 0.040 lbs/MMBTU heat input.

Applicable Compliance Method:

Compliance with the above emission limitation shall be based upon the following equation:

$$PER = (Ef \times Fo) / Hi$$

where:

PER = Particulate Emission Rate, in lbs/MMBTU;  
 Ef = Emission Factor, in lbs/1000 gals, ( 2 lbs/1000 gals, AP-42 Table 1.3-3);  
 Fo = Fuel oil usage, 1000 gals/hr, (0.0044, calculation sheet); and  
 Hi = Heat input, MMBTU/hr, (0.62 MMBTU/hr, PTI Application and cover sheet).



c. Emission Limitation:

20% Opacity, as a six minute average, from the stack.

Applicable Compliance Method:

Compliance shall be determined in accordance with Test Method 9 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in OAC rule 3745-17-03.

(2) In accordance with the requirements of 40 CFR Part 60.482 and OAC rule 3745-21-09(DD)(2) to (DD)(6) 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 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit to demonstrate compliance with the leak detection and repair requirements of 40 CFR Part 60, Subpart VV and OAC rule 3745-21-09(DD).
- b. U.S. EPA Reference Method 21 of 40 CFR Part 60 Appendix A shall be employed to demonstrate compliance.
- c. The permittee shall semiannual reports in accordance with the requirements of 40 CFR Part 60.487 and OAC rule 3745-21-09(DD)(2)(m).

g) Miscellaneous Requirements

(1) None.