



4/28/2015

Certified Mail

Mr. Chris Ackers
Eureka Hunter Pipeline LLC - Rex/Tex Compressor Station
27710 State Route 7
Marietta, OH 45750

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0656035009
Permit Number: P0118335
Permit Type: Initial Installation
County: Monroe

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

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.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 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, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-SEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for**

Eureka Hunter Pipeline LLC - Rex/Tex Compressor Station

Facility ID:	0656035009
Permit Number:	P0118335
Permit Type:	Initial Installation
Issued:	4/28/2015
Effective:	4/28/2015
Expiration:	4/28/2025



Division of Air Pollution Control
Permit-to-Install and Operate
for
Eureka Hunter Pipeline LLC - Rex/Tex Compressor Station

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	4
2. Who is responsible for complying with this permit?	4
3. What records must I keep under this permit?	4
4. What are my permit fees and when do I pay them?.....	4
5. When does my PTIO expire, and when do I need to submit my renewal application?	4
6. What happens to this permit if my project is delayed or I do not install or modify my source?	5
7. What reports must I submit under this permit?	5
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?	5
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	5
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	6
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	6
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	6
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	7
15. What happens if a portion of this permit is determined to be invalid?	7
B. Facility-Wide Terms and Conditions.....	8
C. Emissions Unit Terms and Conditions	11
1. Emissions Unit Group -2,370 HP Compressor Engines: P003,P005,	12
2. Emissions Unit Group -1,380 HP Compressor Engines: P001,P002,	22



Authorization

Facility ID: 0656035009
Application Number(s): A0052144, A0052802
Permit Number: P0118335
Permit Description: Installation and operating permit for new compressor station
Permit Type: Initial Installation
Permit Fee: \$1,600.00
Issue Date: 4/28/2015
Effective Date: 4/28/2015
Expiration Date: 4/28/2025
Permit Evaluation Report (PER) Annual Date: July 1 - June 30, Due Aug 15

This document constitutes issuance to:

Eureka Hunter Pipeline LLC - Rex/Tex Compressor Station
51213 Krebs Hill Rd
Clarrington, OH 43915

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

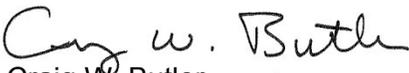
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Southeast District Office
2195 Front Street
Logan, OH 43138
(740)385-8501

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


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0118335
 Permit Description: Installation and operating permit for new compressor station

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

Group Name: 1380 HP Compressor Engines

Emissions Unit ID:	P003
Company Equipment ID:	P003
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	P005
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

Group Name: 2370 HP Compressor Engines

Emissions Unit ID:	P001
Company Equipment ID:	P001
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	P002
Superseded Permit Number:	
General Permit Category andType:	Not Applicable



Final Permit-to-Install and Operate
Eureka Hunter Pipeline LLC - Rex/Tex Compressor Station
Permit Number: P0118335
Facility ID: 0656035009
Effective Date: 4/28/2015

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. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. 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 of this permit 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 [DO/LAA] 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 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 emission 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.



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.



B. Facility-Wide Terms and Conditions



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.
2. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines at Area Sources. Although Ohio EPA has determined that this GACT applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, US EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by US EPA. For more information on the area source rules, please refer to the following US EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
3. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart JJJJ and OOOO (P001-P003, P005). The complete NSPS requirements, including the NSPS General Provisions, may be accessed via the internet from the e-CFR website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.
4. Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), for this project were not necessary because for the emissions units not exempted from modeling per OEPA Engineering Guide #69, maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year when controlled. OAC Chapter 3745-31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745-31-01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.
5. Air contaminant sources that qualify as *de minimis* under OAC rule 3745-15-05, or are exempt under OAC rule 3745-31-03(A)(1) or (4) are not subject to emission standards established within this permit. Although this permit does not apply to *de minimis* or exempt sources, emissions from *de minimis* or exempt sources must be included in the total PTE calculations for this permit. PTE calculations, therefore, should include the following sources from this facility:
 - a) F001 unpaved roads;
 - b) J001 truck loading of produced water;
 - c) P004 engine blowdowns;
 - d) P801 fugitive leaks;
 - e) T001 produced water tank;



Final Permit-to-Install and Operate
Eureka Hunter Pipeline LLC - Rex/Tex Compressor Station
Permit Number: P0118335
Facility ID: 0656035009
Effective Date: 4/28/2015

5. The Compressor Station must comply with the Used Oil Management Standards of OAC Chapter 3745-279.



C. Emissions Unit Terms and Conditions



1. Emissions Unit Group -2,370 HP Compressor Engines: P003,P005,

EU ID	Operations, Property and/or Equipment Description
P003	2,370 hp natural gasfueled lean burn 4-stroke Caterpillar G3608TALE compressor engine controlled with catalytic convertor, 90% control efficiency for CO, 93% control efficiency for formaldehyde, 75% control efficiency for VOC. (Engine manufacture date of 7/20/10).
P005	2,370 hp natural gas fueled lean burn 4-stroke Caterpillar G3608TALE compressor engine controlled with catalytic convertor, 90% control efficiency for CO, 93% control efficiency for formaldehyde, 75% control efficiency for VOC. (Engine manufacture date 5/16/2014).

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. None.

(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(A)(3) and ORC 3704.03(T), as effective 6/30/08	Install an engine that is designed to meet of 0.5 g nitrogen oxide (NO _x)/bhp-hr.
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Install a catalytic convertor that shall have at least 90% control efficiency for carbon monoxide (CO) emissions. Install a catalytic convertor that shall have at least 75% control efficiency for volatile organic compounds (VOC) emissions. See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/1/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		05(A)(3) do not apply to the VOC and CO emissions from this air contaminant source since the calculated annual emission rate is less than 10 tons/yr taking into account the voluntary restriction from OAC rule 3745-31-05(E). See b)(2)b. below.
d.	OAC rule 3745-31-05(E), effective 6/1/2008	Install and operate a catalytic converter with at least 90% control efficiency for CO emissions. CO emissions shall not exceed 6.27 tons per year. Install and operate a catalytic converter with at least 75% control efficiency for VOC emissions. VOC emissions shall not exceed 3.60 tons per year. Install and operate a catalytic converter with at least 93% control efficiency for formaldehyde emissions. Formaldehyde emissions shall not exceed 0.42 tons per year.
e.	40 CFR Part 60, Subpart JJJJ (40 CFR 60. 4230 – 60.4248) [In accordance with 40 CFR 60.4230(a), Table 1, and 40 CFR 60.4230(a)(4)(i), this emissions unit is a stationary spark ignition internal combustion engine commencing construction and manufactured after July 1, 2010, and is subject to the emission limitations and control measures specified in this section.]	NO _x emissions shall not exceed 1.0 g/hp-hr. or 82 ppmvd at 15% O ₂ . CO emissions shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15% O ₂ . VOC emissions shall not exceed 0.7 g/hp-hr or 60 ppmvd at 15% O ₂ . [40 CFR 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]
f.	40 CFR Part 60, Subpart OOOO, (40 CFR 60. 5360 – 60.5430) [In accordance with 40 CFR Part 60.5365(c) this emissions unit is a reciprocating compressor engine located between the wellhead and	See c)(4), d)(7) and e)(5).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	the point of custody transfer to the natural gas transmission and storage segment subject to the maintenance, operational, monitoring, recordkeeping, and reporting measures specified in this section.]	
g.	40 CFR Part 60.1 – 19 (40 CFR 60.4246 and 60.5425)	Table 3 to Subpart JJJJ and OOOO of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ and OOOO shows which part of the General Provisions in 40 CFR Part 60.1 – 19 apply.
h.	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.
i.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 lb/MMBtu actual heat input.
j.	OAC rule 3745-18-06(E)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
k.	OAC rule 3745-110-03(F)	This emission unit is subject but exempt from the requirement of OAC rule 3745-110-03 per OAC 3745-110-02(A)(2)(b).

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio State Implementation Plan SIP.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall install and operate the engines with a catalytic convertor for control of CO, VOC, and formaldehyde emissions and shall maintain the engine and catalytic convertor in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (3) In the event the engine or catalytic convertor is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any



modifications deemed necessary by the permittee, the engine or catalytic convertor shall be expeditiously repaired or otherwise returned to these documented operating conditions.

- (4) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subparts JJJJ and OOOO, including the following sections:

60.4234	Operate and maintain engine in compliance with emission standards over the life of the engine
60.4243(b)(2) and 60.4243(b)(2)(ii)	For non-certified engines, maintain and operate engine with good air pollution control practices
60.4243(e)	Use of propane for up to 100 hours per year during emergencies
60.4243(g)	Maintain and operate air to fuel ratio (AFR) with three-way catalyst/non-selective catalytic reduction.
60.5385(a)(1) and (2), and 60.5415(c)(3)	Replace rod packing either before the total hours of operation reaches 26,000 hours or the most recent rod packing replacement reaches 36 months

d) Monitoring and/or Recordkeeping Requirements

- (1) 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.
- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, operating manuals for the engine and catalytic convertor, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (3) The permittee shall conduct periodic inspections of the engine and catalytic convertor to determine whether they are operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency, and it shall be made available to the Ohio EPA upon request.



- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the engine and catalytic convertor while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (5) The permittee shall document each inspection (periodic and annual) of the engine and catalytic convertor and shall maintain the following information:
 - a. The date of the inspection;
 - b. A description of each/any problem identified and the date it was corrected;
 - c. A description of any maintenance and repairs performed; and
 - d. The name of the person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the catalytic convertor was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the engine or catalytic convertor was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.
- (7) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subparts A, JJJJ and OOOO, including the following sections:

60.4243(b)(2)(ii) and 60.4245(a)(i)	Keep maintenance plan and records of conducted maintenance, and all notifications, and documentation that the engine meets the emissions standards
60.5410(c)(1) and (4), 60.5415(c)(1), 60.5385, 60.5420(c)(3) and 60.7(f)	Continuously monitor and maintain records of hours of operation or number of months, maintain rod packing replacements records and records of deviations of operating requirements.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal: or they may be mailed as a hard copy to the appropriate district office or local air agency.



- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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.
- (3) 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.
- (4) The permittee shall submit deviation (excursion) reports that identify each occurrence that the permittee failed to complete required maintenance of this emissions unit per the engine or catalytic convertor manufacturer's requirement. Each report shall be submitted within 30 days after the deviation occurs.
- (5) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts A, JJJJ and OOOO, including the following sections:

60.7 and 60.4245(c)	Submit an initial notification (non-certified engines)
60.4245(d)	Submit performance test copies within 60 days after the test has been completed
60.5385, 60.5410(c)(3), 60.5415(c)(2), and 60.5420(b)	Submit annual reports within 90 days after the end of the initial compliance period and no later than the same date each subsequent year

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. Emissions Limitation:
 Install an engine that is designed to meet of 0.5 g NO_x/bhp-hr.
 Applicable Compliance Method:
 Compliance with the short term emission limitations shall be demonstrated based upon the emissions testing requirements specified in f)(2).
 - b. Emissions Limitations:
 Install a catalytic convertor that shall have at least 90% control efficiency for CO emissions.



Install and operate a catalytic converter with at least 90% control efficiency for CO emissions.

CO emissions shall not exceed 6.27 tons per year.

Applicable Compliance Method:

Compliance with the short term emission limitations shall be demonstrated based upon the emissions testing requirements specified in f)(2).

Compliance with the annual emission limitation is demonstrated by the following equation:

$$\{Ef * HP * \frac{1}{453.50g} * \frac{8,760hrs}{yr} * (1 - CE)\} / (2,000lbs/ton)$$

Where:

- Ef= emission factor, 2.74 g/bhp-hr, specified in the manufacturer's engine specification sheet obtained from Caterpillar,
- HP = the power output rating of this unit, 2,370 bhp
- CE = control efficiency, 90%

c. Emissions Limitations:

Install a catalytic converter that shall have at least 75% control efficiency for volatile organic compounds (VOC) emissions

Install and operate a catalytic converter with at least 75% control efficiency for VOC emissions.

VOC emissions shall not exceed 3.60 tons per year.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

Compliance with the annual emission limitation is demonstrated by the following equation:

$$\{Ef * HP * \frac{1}{453.50g} * \frac{8,760hrs}{yr} * (1 - CE)\} / (2,000lbs/ton)$$

Where:

- Ef= emission factor, 0.63 g/bhp-hr, specified in the manufacturer's engine specification sheet obtained from Caterpillar,
- HP = the power output rating of this unit, 2,370 bhp
- CE = control efficiency, 75%



d. Emissions Limitations:

Install and operate a catalytic converter with at least 93% control efficiency for formaldehyde emissions.

Formaldehyde emissions shall not exceed 0.42 tons per year.

Applicable Compliance Method:

Compliance with the g/hp-hr limit shall be demonstrated based upon the emissions testing requirements specified in f)(2).

Compliance with the annual emission limitation is demonstrated by the following equation:

$$\{Ef * HP * \frac{1}{453.50g} * \frac{8,760hrs}{yr} * (1 - CE)\} / (2,000lbs/ton)$$

Where:

Ef= emission factor, 0.26 g/bhp-hr, specified in the manufacturer's engine specification sheet obtained from Caterpillar,

HP = the power output rating of this unit, 2,370 bhp

CE = control efficiency, 93%

e. Emissions Limitation:

NO_x emissions shall not exceed 1.0 g/hp-hr or 82 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

f. Emissions Limitation:

CO emissions shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

g. Emissions Limitation:

VOC emissions shall not exceed 0.7 g/hp-hr or 60 ppmvd at 15% O₂.



Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

h. Emission Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

i. Emissions Limitation:

PE shall not exceed 0.062 lb/MMBtu actual heat input.

Applicable Compliance Method:

Compliance is demonstrated by the applicant's application listing the emission factor for this engine as 0.00999 lb/MMBtu, which is less than the emission limitation.

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources." Alternative US EPA-approved test methods may be used with prior approval from Ohio EPA, SEDO, and the procedures specified in OAC rule 3745-17-03(B)(10).

(2) Pursuant to 40 CFR 60.4243(b)(2)(ii), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(E), ORC 3704.03(T), and Table 1 of 40 CFR Part 60 Subpart JJJJ, the permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the procedures specified in 40 CFR Part 60, Appendix A, 40 CFR 60.8, 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ, Table 2, and the following requirements:

- a. An initial performance test shall be performed 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. Subsequent performance tests shall be performed every 8,760 hours or three years whichever comes first.
- b. The emission testing shall be conducted to demonstrate compliance with the mass emissions limitations in b)(1)a. through b)(1)g. for VOC, NO_x, CO, and formaldehyde.



- c. The following test methods shall be employed to demonstrate compliance with the allowable NO_x emission rate, the emissions limitations and design standards for CO, VOC, and formaldehyde limits in b)(1)a.:

Methods 1-4 and 7E of CFR Part 60, Appendix A for NO_x;

Methods 1-4 and 10 of 40 CFR Part 60, Appendix A for CO; and

Methods 1-4, 25A and 18 of 40 CFR Part 60, Appendix A for VOC; and

Methods 320 or 323 of 40 CFR Part 63, Appendix A.

- d. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
- e. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
- 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, Southeast District Office. 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, Southeast District Office's refusal to accept the results of the emission test(s).
- g. Personnel from the Ohio EPA, Southeast District Office 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 on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.

g) Miscellaneous Requirements

- (1) None.



2. Emissions Unit Group -1,380 HP Compressor Engines: P001,P002,

EU ID	Operations, Property and/or Equipment Description
P001	1,380 hp natural gas fueled lean burn 4-stroke Caterpillar G3516BLE compressor engine controlled with catalytic convertor, 90% control efficiency for CO, 95% control efficiency for formaldehyde, 70% control efficiency for VOC. (Manufacture date: 3/11/2013).
P002	1,380 hp natural gas fueled lean burn 4-stroke Caterpillar G3516BLE compressor engine controlled with catalytic convertor, 90% control efficiency for CO, 95% control efficiency for formaldehyde, 70% control efficiency for VOC. (Manufacture date: 1/31/2014).

- 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. None.
 - (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(A)(3) as effective 6/30/08	Install an engine that is designed to meet of 0.5 g nitrogen oxide (NO _x)/bhp-hr. Install a catalytic convertor that shall have at least a 70% control efficiency for volatile organic compound (VOC)/bhp-hr. Install a catalytic convertor that shall have at least 90% control efficiency for carbon monoxide (CO) emissions. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/1/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>05(A)(3) do not apply to the NO_x and VOC emissions from this air contaminant source since the calculated annual emission rate is less than 10 tons/yr.</p> <p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions from this air contaminant source since the calculated annual emission rate is less than 10 tons/yr taking into account the voluntary restriction from OAC rule 3745-31-05(E).</p> <p>See b)(2)b. below.</p>
c.	OAC rule 3745-31-05(E), effective 6/1/2008	<p>Install and operate a catalytic convertor that reduces CO emissions by at least 90%.</p> <p>CO emission shall not exceed 3.24 tpy.</p> <p>Install and operate catalytic convertor that reduces formaldehyde emissions by 95%.</p> <p>Formaldehyde emissions shall not exceed 0.29 tons per year</p>
d.	<p>40 CFR Part 60, Subpart JJJJ (40 CFR 60. 4230 – 60.4248)</p> <p>[In accordance with 40 CFR Part 60.4230(a), and 40 CFR Part 60.4230(a)(4)(i), this emissions unit is a stationary spark ignition internal combustion engine commencing construction and manufactured after July 1, 2010, subject to the emission limitations and control measures specified in this section.]</p>	<p>NO_x emissions shall not exceed 1.0 g/hp-hr or 82 ppmvd at 15% O₂.</p> <p>CO emissions shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15% O₂.</p> <p>VOC emissions shall not exceed 0.7 g/hp-hr or 60 ppmvd at 15% O₂.</p> <p>[40 CFR 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]</p>
e.	<p>40 CFR Part 60, Subpart OOOO, (40 CFR 60. 5360 – 60.5430)</p> <p>[In accordance with 40 CFR Part 60.5365(c) this emissions unit is a reciprocating compressor engine located between the wellhead and the point of custody transfer to the natural gas transmission and storage</p>	See c)(4), d)(7) and e)(5).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	segment subject to the maintenance, operational, monitoring, recordkeeping, and reporting measures specified in this section.]	
f.	40 CFR Part 60.1 – 19 (40 CFR 60.4246 and 60.5425)	Table 3 to Subparts JJJJ and OOOO of 40 CFR Part 60 – Applicability of General Provisions to Subparts JJJJ and OOOO, shows which part of the General Provisions in 40 CFR Part 60.1 – 19 apply.
g.	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.
h.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 lb/MMBtu actual heat input.
i.	OAC rule 3745-18-06(E)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
j.	OAC rule 3745-110-03(F)	This emission unit is subject but exempt from the requirement of OAC rule 3745-110-03 per OAC 3745-110-02(A)(2)(b).

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio State Implementation Plan SIP.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall install and operate the engines with a catalytic convertor for control of CO, VOC, and formaldehyde emissions and shall maintain the engine and catalytic convertor in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (3) In the event the engine or catalytic convertor is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the engine shall be expeditiously repaired or otherwise returned to these documented operating conditions.



- (4) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subparts JJJJ and OOOO, including the following sections:

60.4234	Operate and maintain engine in compliance with emission standards over the life of the engine
60.4243(b)(2) and 60.4243(b)(2)(ii)	For non-certified engines, maintain and operate engine with good air pollution control practices
60.4243(e)	Use of propane for up to 100 hours per year during emergencies
60.4243(g)	Maintain and operate air to fuel ratio (AFR) with three-way catalyst/non-selective catalytic reduction.
60.5385(a), 60.5415(c)(3)	Replace rod packing either before the total hours of operation reaches 26,000 hours or the most recent rod packing replacement reaches 36 months

d) Monitoring and/or Recordkeeping Requirements

- (1) 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.
- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, operating manuals for the engine and catalytic convertor, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (3) The permittee shall conduct periodic inspections of the engine catalytic convertor to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency, and it shall be made available to the Ohio EPA upon request.
- (4) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the engine catalytic convertor while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.



- (5) The permittee shall document each inspection (periodic and annual) of the engine catalytic convertor and shall maintain the following information:
 - a. The date of the inspection;
 - b. A description of each/any problem identified and the date it was corrected;
 - c. A description of any maintenance and repairs performed; and
 - d. The name of the person who performed the inspection.

These records shall be maintained at the facility for not less than five years from the date the inspection and any necessary maintenance or repairs were completed and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

- (6) The permittee shall maintain records that document any time periods when the catalytic convertor was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the engine was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.
- (7) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subparts A, JJJJ, and OOOO, including the following sections:

60.4243(b)(2)(ii), and 60.4245(a)(i),	Keep maintenance plan and records of conducted maintenance, and all notifications documentation that the engine meets the emissions standards
60.5410(c)(1) and (4), 60.5415(c)(1), 60.5385, 60.5420(c)(3) and 60.7(f)	Continuously monitor and maintain records of hours of operation or number of months, maintain rod packing replacements records and records of deviations of operating requirements.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal: or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency 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.



- (3) 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.
- (4) The permittee shall submit deviation (excursion) reports that identify each occurrence that the permittee failed to complete required maintenance of this emissions unit per the engine or catalytic convertor manufacturer's requirement. Each report shall be submitted within 30 days after the deviation occurs.
- (5) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts A, JJJJ and OOOO, including the following sections:

60.7 and 60.4245(c)	Submit an initial notification (non-certified engines)
60.4245(d)	Submit performance test copies within 60 days after the test has been completed
60.5385, 60.5410(c)(3), 60.5415(c)(2), and 60.5420(b)(3)	Submit annual reports within 90 days after the end of the initial compliance period and no later than the same date each subsequent year

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. Emissions Limitation:
 Install an engine that is designed to meet of 0.5 g NO_x/bhp-hr.
 Applicable Compliance Method:
 Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).
 - b. Emissions Limitation:
 Install a catalytic convertor that shall have at least a 70% control efficiency for volatile organic compound (VOC)/bhp-hr.
 Applicable Compliance Method:
 Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).



c. Emissions Limitations:

Install a catalytic convertor that shall have at least 90% control efficiency for CO emissions.

Install and operate a catalytic convertor that reduces CO emissions by at least 90%.

CO emission shall not exceed 3.24 tpy.

Applicable Compliance Method:

Compliance with the short term emissions limitation shall be demonstrated based upon the emissions testing requirements specified in f)(2).

Compliance with the annual emission limitation is demonstrated by the following equation:

$$\{Ef * HP * \frac{1}{\frac{453.50g}{lb}} * \frac{8,760hrs}{yr} * (1 - CE)\} / (2,000lbs/ton)$$

Where:

Ef= emission factor, 2.43 g/bhp-hr, specified in the manufacturer's engine specification sheet obtained from Caterpillar,

HP = the power output rating of this unit, 1,380 bhp

CE = control efficiency, 90%

d. Emissions Limitations:

Install an oxidation catalyst that reduces formaldehyde emissions by 95%.

Formaldehyde emissions shall not exceed 0.29 tons per year

Applicable Compliance Method:

Compliance with the short term emissions limitation shall be demonstrated based upon the emissions testing requirements specified in f)(2).

Compliance with the annual emission limitation is demonstrated by the following equation:

$$\{Ef * HP * \frac{1}{\frac{453.50g}{lb}} * \frac{8,760hrs}{yr} * (1 - CE)\} / (2,000lbs/ton)$$

Where:

Ef= emission factor, 0.43 g/bhp-hr, specified in the manufacturer's engine specification sheet obtained from Caterpillar,

HP = the power output rating of this unit, 1,380 bhp



CE = control efficiency, 95%

e. Emissions Limitation:

NO_x emissions shall not exceed 1.0 g/hp-hr. or 82 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

f. Emissions Limitation:

CO emissions shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

g. Emissions Limitation:

VOC emissions shall not exceed 0.7 g/hp-hr or 60 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emissions testing requirements specified in f)(2).

h. Emissions Limitation:

PE shall not exceed 0.062 lb/MMBtu actual heat input.

Applicable Compliance Method:

Compliance is demonstrated by the applicant's application listing the emission factor for this engine as 0.00999 lb/MMBtu, which is less than the emission limitation.

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources." Alternative US EPA-approved test methods may be used with prior approval from Ohio EPA, SEDO, and the procedures specified in OAC rule 3745-17-03(B)(10).

i. Emissions Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.



Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

- (2) Pursuant to 40 CFR 60.4243(b)(2)(ii), OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(E) and Table 1 of 40 CFR Part 60 Subpart JJJJ, the permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the procedures specified in 40 CFR Part 60, Appendix A, 40 CFR 60.8, 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ, Table 2, and the following requirements:
- a. An initial performance test shall be performed 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. Subsequent performance tests shall be performed every 8,760 hours or three years whichever comes first.
 - b. The emission testing shall be conducted to demonstrate compliance with the mass emissions limitations in b)(1)a. through b)(1)g. for VOC, NO_x, CO, and formaldehyde.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable NO_x emission rate, the emissions limitations and design standards for CO, VOC, and formaldehyde limits in b)(1)a.:

Methods 1-4 and 7E of CFR Part 60, Appendix A for NO_x;

Methods 1-4 and 10 of 40 CFR Part 60, Appendix A for CO; and

Methods 1-4, 25A and 18 of 40 CFR Part 60, Appendix A for VOC; and

Methods 320 or 323 of 40 CFR Part 63, Appendix A.
 - d. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
 - e. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
 - 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, Southeast District Office. 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, Southeast District Office's refusal to accept the results of the emission test(s).



- g. Personnel from the Ohio EPA, Southeast District Office 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 on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office 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, Southeast District Office.
- g) Miscellaneous Requirements
 - (1) None.