



1/21/2014

Certified Mail

Mr. Jeffery Zehner  
Dominion East Ohio - Switzerland Compressor Station  
5000 Dominion Blvd.  
Richmond, VA 23060

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
Yes	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: 0656005010  
Permit Number: P0115292  
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](http://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](http://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](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, Southeast District Office at (740)385-8501 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-SEDO



**FINAL**

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

**Dominion East Ohio - Switzerland Compressor Station**

Facility ID:	0656005010
Permit Number:	P0115292
Permit Type:	Initial Installation
Issued:	1/21/2014
Effective:	1/21/2014
Expiration:	1/21/2024





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Dominion East Ohio - Switzerland 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?.....	6
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 .....	10
1. P005, Emergency Auxiliary Generator .....	11
2. Emissions Unit Group -natural gas compressors: P001,P002,P003,P004,.....	18





**Final Permit-to-Install and Operate**  
Dominion East Ohio - Switzerland Compressor Station  
**Permit Number:** P0115292  
**Facility ID:** 0656005010  
**Effective Date:** 1/21/2014

## Authorization

Facility ID: 0656005010  
Application Number(s): A0048631  
Permit Number: P0115292  
Permit Description: Initial installation of a natural gas compressor station.  
Permit Type: Initial Installation  
Permit Fee: \$1,800.00  
Issue Date: 1/21/2014  
Effective Date: 1/21/2014  
Expiration Date: 1/21/2024  
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Dominion East Ohio - Switzerland Compressor Station  
Germain Ridge Road  
Switzerland Twp., OH 43942

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

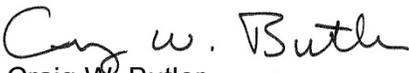
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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  
Interim Director



## Authorization (continued)

Permit Number: P0115292  
 Permit Description: Initial installation of a natural gas compressor station.

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

**Emissions Unit ID:** P005  
 Company Equipment ID: P005  
 Superseded Permit Number:  
 General Permit Category and Type: Not Applicable

**Group Name: natural gas compressors**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	P001
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	P002
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	P003
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	P004
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Dominion East Ohio - Switzerland Compressor Station  
**Permit Number:** P0115292  
**Facility ID:** 0656005010  
**Effective Date:** 1/21/2014

## **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 may be subject to the requirements of an area source MACT/GACT rule that the Ohio EPA does not have the delegated authority to implement. Although Ohio EPA has determined that these Generally Available Control Technology NESHAP (GACT) may apply, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. 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 U.S. EPA. For more information on the area source rules, please refer to the following U.S. 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, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines: P001 – P005. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Southeast District Office.
4. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit with maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, of greater than 1.0 ton per year are subject to a MACT standard under 40 CFR Part 63. 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.



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



**1. P005, Emergency Auxiliary Generator**

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

791 Hp natural gas-fired, (4SLB) Caterpillar G3512 emergency generator equipped with oxidation catalyst. Engine model year: 2013.

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)	Install an engine that is designed to meet 2.0 grams/Hp-hr of carbon monoxide (CO) emissions.
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Install an engine that is designed to meet 1.0 gram/Hp-hr of nitrogen oxides (NOx) emissions.  Install an engine that is designed to meet 0.7 gram/Hp-hr of volatile organic compounds (VOC) emissions.  Particulate emissions (PE) shall not exceed 0.023 ton per month averaged over a twelve-month rolling period.  See b)(2)a. below



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
d.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c. below.
e.	<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)(iv), this emissions unit is an emergency stationary spark ignition internal combustion engine manufactured after January 1, 2009, for which construction commenced after June 12, 2006, subject to the emission limitations and control measures specified in this section.]</p>	<p>NOx emissions shall not exceed 2.0 g/hp-hr or 160ppmvd at 15% oxygen (O<sub>2</sub>).</p> <p>CO emissions shall not exceed 4.0 g/hr-hr or 540 ppmvd at 15% oxygen (O<sub>2</sub>).</p> <p>VOC emissions shall not exceed 1.0 g/hp-hr or 86ppmvd at 15% oxygen (O<sub>2</sub>).</p> <p>The emissions limitations specified by this rule are less stringent than the emissions limitations established pursuant to OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(C) and ORC 3704.03(T).</p> <p>[40 CFR 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]</p>
f.	40 CFR Part 60.1 – 19 (40 CFR 60.4246)	Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 19 apply.
g.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 pound/million Btu actual heat input.
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 3745-18-06(E)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265



changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.

- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install and Operate, P0115292 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. The permittee shall employ an air-to-fuel ratio controller with the operation of oxidation catalyst. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
- ii. The permittee shall employ a Miratech oxidation catalyst or equivalent that shall have at least a 92.1% design removal efficiency for NO<sub>x</sub> at maximum rated capacity (1.0 gram/Hp-hr) and an operational efficiency for VOC at maximum rated capacity of 0.7 gram/Hp-hr.
- iii. NO<sub>x</sub> emissions shall not exceed 7.63 tons per year, and VOC shall not exceed 5.34 tons per year.

- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the uncontrolled potential to emit for PE is less than 10 tons/yr.

c) Operational Restrictions

- (1) The permittee shall burn only gaseous fuel in this emissions unit.
- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, 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)(ii)	Operation and maintenance requirements for non-certified engines
60.4243(d)(1), 60.4243(d)(2), 60.4243(d)(3)	Emergency stationary ICE alternative operation requirements
60.4243(e)	Use of propane for up to 100 hours per year during emergencies
60.4243(g)	Use of air to fuel ratio (AFR) controllers and AFR operation and maintenance requirements

(3) The engine is controlled by an air-to-fuel ratio controller with the operation of oxidation catalyst or equivalent NOx and CO control technology that shall have at least a 92.1% design removal efficiency for NOx at maximum rated capacity and 84% design removal efficiency CO at maximum rated capacity to meet the BAT annual emission rate for NOx and CO. The permittee must follow all manufacturer specifications to guarantee the manufacturer emission limits warranty. Specifications as provided in the permittee's application.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than gaseous fuels, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4243(b)(2)(ii), 60.4245(a)(4), 60.4245(a)(1), 60.4245(a)(2), and 60.4245(b)	Keep maintenance plan and records of conducted maintenance, and documentation that the engine meets the emissions standards
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Upon initial startup, the permittee shall continuously monitor and record the number of hours of operation and perform all maintenance as required by the Miratech Corporation. Records shall be maintained of the date of any completed required maintenance to demonstrate compliance with the Miratech Corporation emissions limit warranty. Records of deviations from the Miratech Corporation emissions limit warranty shall also be maintained. These records shall be retained for at least 5 years.



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 gaseous fuels 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 in this emissions unit per the Miratech Corporation emissions limit warranty. 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 JJJJ and A, including the following sections:

60.4245(c) and 60.7(a)(1)	Submit an initial notification (non certified engines)
60.4245(e)	Submit annual reports for emergency stationary ICE alternative operation options if applicable
60.4245(d)	Submit performance test copies within 60 days after the test has been completed

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 Limitations:
 

Install an engine that is designed to meet 1.0 gram/Hp-hr of NOx emissions.

NOx emissions shall not exceed 2.0 g/hp-hr or 160 ppmvd at 15% oxygen (O2).

Applicable Compliance Methods:

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



b. Emissions Limitations:

Install an engine that is designed to meet 2.0 grams/Hp-hr of CO emissions.

CO emissions shall not exceed 4.0 g/hr-hr or 540 ppmvd at 15% oxygen (O<sub>2</sub>).

Applicable Compliance Methods:

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

c. Emissions Limitations:

Install an engine that is designed to meet 0.7 gram/Hp-hr of VOC emissions.

VOC emissions shall not exceed 1.0 g/hp-hr or 86 ppmvd at 15% oxygen (O<sub>2</sub>).

Applicable Compliance Methods:

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

d. 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.

e. Emissions Limitations:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

PE shall not exceed 0.023 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

Compliance with the pound/million Btu limit is demonstrated by compliance with the 0.01 pound/million Btu emission factor specified in AP-42 Table 3.2-2 (7/00).

If required, compliance with the short term emissions limitation shall be determined according to 40 CFR Part 60, Appendix A, U.S. EPA Methods 1 - 5.

The ton per month averaged over a twelve-month rolling period emission limitation was established by multiplying an emission factor of 0.01 pound/million Btu, the emission factor is specified in AP-42 Table 3.2-2 (7/00), by the maximum heat input of the engine (6.2million Btu/hour), multiplied by 8,760 hours in a year, and divided by 2,000 lbs in a ton averaged over a twelve-month rolling period.



- (2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with 40 CFR 60.4243(b)(2)(i) and 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 to demonstrate compliance with the mass emissions limitations for VOC, NO<sub>x</sub> and CO, 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.
  - b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
  - c. 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.
  - d. 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).
  - e. 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.
  - f. 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 -natural gas compressors: P001,P002,P003,P004,**

EU ID	Operations, Property and/or Equipment Description
P001	3,550 Hp Natural gas-fired, (4SLB) Caterpillar model 3612 LE DM5309-06 compressor engines equipped with oxidation catalyst. Engine model year: 2013.
P002	3,550 Hp Natural gas-fired, (4SLB) Caterpillar model 3612 LE DM5309-06 compressor engines equipped with oxidation catalyst. Engine model year: 2013.
P003	3,550 Hp Natural gas-fired, (4SLB) Caterpillar model 3612 LE DM5309-06 compressor engines equipped with oxidation catalyst. Engine model year: 2013.
P004	3,550 Hp Natural gas-fired, (4SLB) Caterpillar model 3612 LE DM5309-06 compressor engines equipped with oxidation catalyst. Engine model year: 2013.

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)	Install an engine that is designed to meet 0.5 gram/Hp-hr of nitrogen oxides (NOx) emissions.
b.	40 CFR Part 60, Subpart JJJJ (40 CFR 60. 4230 – 60.4248)  [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 manufactured after July 1, 2007, for which	NOx emissions shall not exceed 1.0 g/hp-hr or 82ppmvd at 15% oxygen (O <sub>2</sub> ).  Carbon monoxide (CO) emissions shall not exceed 2.0 g/hr-hr or 270 ppmvd at 15% oxygen (O <sub>2</sub> ).  Volatile organic compounds (VOC) emissions shall not exceed 0.7 g/hp-hr or



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	construction commenced after June 12, 2006, subject to the emission limitations and control measures specified in this section.]	<p>60ppmvd at 15% oxygen (O<sub>2</sub>).</p> <p>These emissions limitations specified by this rule are less stringent than the limitations listed under OAC rules 3745-31-05(A)(3), OAC rule 3745-31-05(C) and ORC 3704.03(T).</p> <p>[40 CFR 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]</p>
c.	40 CFR Part 60.1 – 19 (40 CFR 60.4246)	Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 19 apply.
d.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Install an engine that is designed to meet 0.22 gram/Hp-hr of carbon monoxide (CO) emissions.</p> <p>Install an engine that is designed to meet 0.26 gram/Hp-hr of volatile organic compounds (VOC) emissions.</p> <p>Particulate emissions (PE) shall not exceed 0.09 ton per month averaged over a twelve-month rolling period.</p> <p>See b)(2)a. below</p>
e.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
f.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)c. below.
g.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 pound/million Btu actual heat input.
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 3745-18-06(E)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).



(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, then these emission limits/control measures no longer apply.
- b. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit to Install and Operate, P0115292 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. The permittee shall employ an air-to-fuel ratio controller with the operation of oxidation catalyst. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.
  - ii. The permittee shall employ a Miratech oxidation catalyst or equivalent that shall have at least a 92% design removal efficiency for carbon monoxide (CO) at maximum rated capacity (0.22 gram/Hp-hr.) and 60% design removal efficiency for volatile organic compounds (VOC) at maximum rated capacity (0.26 gram/Hp-hr.).
  - iii. CO emissions shall not exceed 7.53 tons per year, and VOC shall not exceed 8.90 tons per year.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this air contaminant source since the uncontrolled potential to emit for PE is less than 10 tons/yr.



c) Operational Restrictions

- (1) The permittee shall burn only gaseous fuel in this emissions unit.
- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4234	Duration of 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)	Operation and maintenance requirements for non-certified engines
60.4243(e)	Use of propane for up to 100 hours per year during emergencies
60.4243(g)	Use of air to fuel ratio (AFR) controllers and AFR operation and maintenance requirements

- (3) The engine is controlled by an air-to-fuel ratio controller with the operation of oxidation catalyst CO and VOC control technology that shall have at least a 92% design removal efficiency for CO at maximum rated capacity and 60% design removal efficiency for VOC at maximum rated capacity to meet the BAT annual emission rate for CO and VOC. The permittee must follow all manufacturer specifications to guarantee the manufacturer emission limits warranty. Specifications as provided in the permittee's application.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than gaseous fuels, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4243(b)(2)(ii), 60.4245(a)(4), 60.4245(a)(1), 60.4245(a)(2), and 60.4245(b)	Keep maintenance plan and records of conducted maintenance, and documentation that the engine meets the emissions standards
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- (3) Upon initial startup, the permittee shall continuously monitor and record the number of hours of operation and perform all maintenance as required by the engine manufacturer. Records shall be maintained of the date of any completed required maintenance to demonstrate compliance with the engine manufacturer emissions limit warranty. Records of deviations from the engine manufacturer emissions limit warranty shall also be



maintained. These records shall be retained for at least 5 years. The permittee shall also check each compressor seal annually for leaks.

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 gaseous fuels 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 in this emissions unit per the Vanec Corporation emissions limit warranty. 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 JJJJ and A, including the following sections:

60.4245(c) and 60.7(a)(1)	Submit an initial notification (non certified engines)
60.4245(d)	Submit performance test copies within 60 days after the test has been completed

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in b)(1) of these terms and conditions shall be determined in accordance with the following methods:
  - a. Emissions Limitations:
 

Install an engine that is designed to meet 0.5 gram/Hp-hr of NOx emissions.

NOx emissions shall not exceed 1.0 g/hp-hr or 82ppmvd at 15% oxygen (O2).

Applicable Compliance Methods:

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



b. Emissions Limitations:

Install an engine that is designed to meet 0.22 gram/Hp-hr of CO emissions.

CO emissions shall not exceed 2.0 g/hr-hr or 270 ppmvd at 15% oxygen (O<sub>2</sub>).

Applicable Compliance Methods:

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

c. Emissions Limitations:

Install an engine that is designed to meet 0.26 gram/Hp-hr of VOC emissions.

VOC emissions shall not exceed 0.7 g/hp-hr or 60ppmvd at 15% oxygen (O<sub>2</sub>).

Applicable Compliance Methods:

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

d. 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.

e. Emissions Limitations:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

PE shall not exceed 0.09 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

Compliance with the pound/million Btu limit is demonstrated by compliance with the 0.01 pound/million Btu emission factor specified in AP-42 Table 3.2-2 (7/00).

If required, compliance with the short term emissions limitation shall be determined according to 40 CFR Part 60, Appendix A, U.S. EPA Methods 1 - 5.

The ton per month averaged over a twelve-month rolling period emission limitation was established by multiplying an emission factor of 0.01 pound/million Btu, the emission factor is specified in AP-42 Table 3.2-2 (7/00), by the maximum



heat input of the engine (24.1million Btu/hour), multiplied by 8,760 hours in a year, and divided by 2000 lbs in a ton averaged over a twelve-month rolling period.

- (2) The permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with 40 CFR 60.4243(b)(2)(i) and 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 to demonstrate compliance with the mass emissions limitations for VOC, NO<sub>x</sub> and CO, 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.
  - b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
  - c. 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.
  - d. 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).
  - e. 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.
  - f. 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.