



5/20/2015

Certified Mail

Melissa Hatfield-Atkinson  
 Chesapeake Expl LLC - Hanchin 9-11-4 Water Recycling P  
 P.O. Box 6070  
 414 Summers Street  
 Charleston, WV 25362

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	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: 0634005107  
 Permit Number: P0118104  
 Permit Type: Initial Installation  
 County: Harrison

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,



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**

**Chesapeake Expl LLC - Hanchin 9-11-4 Water Recycling P**

Facility ID:	0634005107
Permit Number:	P0118104
Permit Type:	Initial Installation
Issued:	5/20/2015
Effective:	5/20/2015
Expiration:	5/20/2025





**Division of Air Pollution Control**  
**Permit-to-Install and Operate**  
for  
Chesapeake Expl LLC - Hanchin 9-11-4 Water Recycling P

**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 .....	10
1. P801, 6000 BWPD of Oil and Gas Well - Water Recycling Process.....	11
2. Emissions Unit Group -2 - 374 HP Diesel Generators: P001,P002,.....	14





## Authorization

Facility ID: 0634005107  
Application Number(s): A0052287  
Permit Number: P0118104  
Permit Description: Initial PTIO for a 6000 BWPD oil and gas water recycling process to reclaim water to be reused in the installation and operation of oil and gas wells (process consists of eight (8) - 503 bbl (21,126 gal) influent process vessels, a wastewater treatment unit, two (2) dissolved air floatation vessels, two (2)- 503 bbl (21,126 gal) clarifiers, 10 - 503 bbl (21,126 gal) effluent process vessels and load in/out operations.  
Permit Type: Initial Installation  
Permit Fee: \$3,300.00  
Issue Date: 5/20/2015  
Effective Date: 5/20/2015  
Expiration Date: 5/20/2025  
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Chesapeake Expl LLC - Hanchin 9-11-4 Water Recycling P  
OH-646 - Annapolis Rd  
German Twp., OH 43986

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

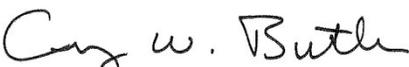
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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: P0118104  
 Permit Description: Initial PTIO for a 6000 BWPD oil and gas water recycling process to reclaim water to be reused in the installation and operation of oil and gas wells (process consists of eight (8) - 503 bbl (21,126 gal) influent process vessels, a wastewater treatment unit, two (2) dissolved air floatation vessels, two (2)- 503 bbl (21,126 gal) clarifiers, 10 - 503 bbl (21,126 gal) effluent process vessels and load in/out operations.

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

**Emissions Unit ID:** P008  
 Company Equipment ID: FT-1 through FT-8  
 Superseded Permit Number:  
 General Permit Category and Type: Not Applicable

**Group Name: 2 - 374 HP Diesel Generators cer**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	GEN-1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	GEN-2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install and Operate**  
Chesapeake Expl LLC - Hanchin 9-11-4 Water Recycling P  
**Permit Number:** P0118104  
**Facility ID:** 0634005107  
**Effective Date:** 5/20/2015

## **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.



**Final Permit-to-Install and Operate**  
Chesapeake Expl LLC - Hanchin 9-11-4 Water Recycling P  
**Permit Number:** P0118104  
**Facility ID:** 0634005107  
**Effective Date:** 5/20/2015

## **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) 3.
  - 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. Multiple emissions units contained in this permit must comply with various federal New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards. The complete NSPS and MACT 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 appropriate Ohio EPA District Office or local air agency. The permittee must comply with the applicable requirements of 40 CFR Part 60 Subparts OOOO, JJJJ, and IIII and 40 CFR Part 63 Subparts HH and ZZZZ as they apply to the emissions source.
3. Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's 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 taking into account Ohio EPA EG #69. OAC Chapter 3745-31 requires a permittee 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. P801, 6000 BWPD of Oil and Gas Well - Water Recycling Process**

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

6,000 BWPD (barrels water per day (0.252 MGD)) Water Recycling Process for the purpose of filtering water associated with oil and gas well installation and operation. Process consist of ; 8 - 503 bbl (21,126 gal) influent process vessels, a wastewater treatment unit, 2 dissolved air floatation vessels, 2- 503 bbl (21,126 gal) Clarifiers, 10 - 503 bbl (21,126 gal) effluent process vessels and Load in/out operations.

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)	Volatile Organic Compounds (VOCs) emissions shall not exceed 0.89 ton per month averaged over a rolling, 12-month period. See c)(1) below.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall minimize emissions by the use of submerged fill and conducting routine operation and maintenance activities in a manner consistent with safety and good air pollution control practices.



d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and analyze representative samples of the water processed at the site on a calendar quarterly\* basis for the purpose of determining the VOC content. The permittee shall maintain the following records of each sample collected for the purpose of this permit:

- a. The name of the person collecting the sample;
- b. The date and location in the process that each sample is collected;
- c. The origin and type of the water shipment/batch being sampled; and
- d. All analytic lab results of each sample taken, including the VOC content expressed in percent (%).

\* The required quarterly analysis may be reduced to annual representative analysis if the permittee maintains records during the first 12-month of operation under this permit which reflects no samples exceeding 0.025 % VOC content. If the permittee reduces to annual sampling, all records required in d)(1) a.-d. shall be maintained for each analysis.

(2) The permittee shall maintain the following records on a monthly basis:

- a. The monthly total barrels of water processed;
- b. The calculated VOC ton/month emitted from the recycle process for the current month using the total barrels of liquids processed for the month and the VOC content (%) as derived from the most recently completed sampling analysis; and
- c. Total calculated monthly tons of VOCs emitted from the recycle process as an average over a 12-month period.

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.

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section 1.b) of these terms and conditions shall be determined in accordance with the following methods:



a. Emissions Limitation:

VOC emissions shall not exceed 0.89 ton per month averaged over a rolling, 12-month period.

Applicable Compliance Method:

The VOC emissions limitation was developed by the following calculation based on the information provided in the permittee's application:

$$\text{VOC} = (\text{percentage of VOC (max)} \times \text{rolling 12-moBWP} \times 1\text{ton}/2,000 \text{ lb} \times 365 \text{ days/yr} \times 42 \text{ gal/B} \times 8.34 \text{ lb/gal} \times 0.0011117 \text{ VOC emitted/VOC processed}) / 12 \text{ months/yr}$$

$$\text{VOC} = (0.025 \% \times 2,190,000 \text{ BWP} \times 1 \text{ ton}/2,000 \text{ lb} \times 42 \text{ gal/B} \times 8.34 \text{ lb/gal} \times 0.0011117 \text{ VOC emitted/VOC processed}) / 12 \text{ months / yr}$$

VOC= 0.89 ton per month averaged over a rolling, 12-month period

Where:

Annual max design thru put = 6,000 BWPD (from application)

Percentage of VOC = 0.025% (maximum value as submitted in application)

8.34 lb/gal specific gravity was used in the equation since the received process water is approximately 99% water.

The emission factor (0.0011117 VOC emitted / VOC processed) is simply the ratio of the VOC emitted to the VOC processed based from information supplied in the application.

Compliance with the emission limitation shall be determined by the above calculation and the records required by d)(1) above.

g) Miscellaneous Requirements

(1) None.



**2. Emissions Unit Group -2 - 374 HP Diesel Generators: P001,P002,**

EU ID	Operations, Property and/or Equipment Description
P001	374 HP CAT-C9 Diesel Generator certified to meet Tier 3 requirements.
P002	374 HP CAT-C9 Diesel Generator certified to meet Tier 3 requirements.

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. b)(1)b.

(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:  3.70 grams/kilowatt hour of nitrogen oxide (NO <sub>x</sub> ) emissions;  3.70 grams/kilowatt hour of volatile organic compound (VOC) emissions;  1.30 grams/kilowatt hour of carbon monoxide (CO) emissions; and  0.14 grams/kilowatt hour of particulate emissions (PE).  Sulfur Dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.21 ton per month average over a rolling, 12-month period.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)a. below
b.	OAC Rule 3745-31-05(A)(3)(a)(ii), effective 6/30/08	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub>, VOC, CO, SO<sub>2</sub> and PE from this air contaminant source since the potential to emit is less than 10 tons/year.</p> <p>See b)(2)b. below</p>
c.	OAC rule 3745-17-11(B)(5)(a)	<p>PE shall not exceed 0.31 lb/million Btu of actual heat input.</p> <p>This emissions limitation is less stringent than the limitations listed under OAC rule 3745-31-05(A)(3), until such time as 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 SIP.</p>
d.	OAC rule 3745-17-07(A)(1)	Visible PE from the stack shall not exceed 20% opacity as a six-minute average, except as provided by rule.
e.	OAC rule 3745-18-06(B)	See b)(2)c. below

(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 SIP.
- c. This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(B).

c) Operational Restrictions

- (1) The permittee shall only burn No. 2 or diesel fuel, containing less than 0.0015% sulfur by weight, in this emissions unit.



d) **Monitoring and/or Recordkeeping Requirements**

- (1) For each day during which the permittee burns a fuel other than #2 diesel fuel or natural gas, the permittee shall maintain a record of the type, percent sulfur content, and quantity of fuel burned in this emissions unit.
- (2) The permittee shall maintain documents provided by the oil supplier for each shipment of #2 fuel oil to demonstrate compliance with the ULSD requirement. These documents must include the receipt or bill of lading that includes confirmation that the fuel meets the #2 diesel fuel ULSD standard.

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 reports that identify each day when a fuel other than low sulfur No. 2 or diesel fuel with a maximum sulfur content of 0.0015% by weight was burned in this emission unit. Each report shall be submitted within 30 days after the deviation occurs.

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 3.70 grams/kilowatt hour of NO<sub>x</sub> emissions.

**Applicable Compliance Method:**

Compliance with the grams per kilowatt per hour emission limitation is demonstrated by the manufacturer's specifications provided in the permittee's application.

If required, NO<sub>x</sub> emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.



b. Emissions Limitation:

Install an engine that is designed to meet 3.70 grams/kilowatt hour of VOC emissions.

Applicable Compliance Method:

Compliance with the grams per kilowatt per hour emission limitation is demonstrated by the manufacturer's specifications provided in the permittee's application.

If required, VOC emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

c. Emissions Limitation:

Install an engine that is designed to meet 1.30 grams/kilowatt hour of CO emissions.

Applicable Compliance Method:

Compliance with the grams per kilowatt per hour emission limitation is demonstrated by the manufacturer's specifications provided in the permittee's application.

If required, CO emissions shall be determined according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

d. Emissions Limitation:

Install an engine that is designed to meet 0.14 grams/kilowatt hour of PE.

PE shall not exceed 0.31 lb/million Btu of actual heat input.

Applicable Compliance Method:

Compliance with the grams per kilowatt per hour emissions limitation is demonstrated by the manufacturer's specifications provided in the permittee's application. Compliance with the lb/MMBtu emissions limit is demonstrated by the following calculations:

$$0.14 \text{ g/kw-hr} * 0.002205 \text{ lb/g} = 0.00031 \text{ lb/kw-hr} * 279 \text{ kw} = 0.058 \text{ lb PE/hr}$$

$$14.4 \text{ gal/hr} * 137,000 \text{ Btu/1 gal} = 1.97 \text{ mmBtu/hr}$$



$$0.058 \text{ lb PE/hr} \times 1 \text{ hr}/1.97 \text{ mmBtu} = 0.029 \text{ lb/mmBtu}$$

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 U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

e. Emissions Limitation:

SO<sub>2</sub> emissions shall not exceed 0.21 ton per month averaged over a 12-month period.

Applicable Compliance Method

The SO<sub>2</sub> emissions limitation was determined by the following equation:

$$[(0.29 \text{ lb/MMBtu})(1.97 \text{ MMBtu per hour})(8760 \text{ hrs/year})(1 \text{ ton}/2,000 \text{ lbs})] / 12 \text{ months} = 0.21 \text{ ton per month averaged over a 12 month period}$$

Where:

0.29 lb/MMBtu = emission factor from AP 42, Table 3.3-1 and Table 3.3-2 (10/96)

1.97 MMBtu/1 hr = maximum rate per permittee application.

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

f. Emissions Limitation:

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

Applicable Compliance Method

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

g) Miscellaneous Requirements

- (1) None