



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

8/20/2015

Certified Mail

Mr. Cory Vail
 Miller Compressor Station
 8150 N. Central Expressway
 Suite 1100
 Dallas, TX 75206

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: 0656005028
 Permit Number: P0118418
 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,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: Ohio EPA-SEDO



FINAL

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

Facility ID:	0656005028
Permit Number:	P0118418
Permit Type:	Initial Installation
Issued:	8/20/2015
Effective:	8/20/2015
Expiration:	6/5/2025



Division of Air Pollution Control
Permit-to-Install and Operate
for
Miller Compressor Station

Table of Contents

Authorization	1
A. Standard Terms and Conditions	4
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	5
2. Who is responsible for complying with this permit?	5
3. What records must I keep under this permit?	5
4. What are my permit fees and when do I pay them?.....	5
5. When does my PTIO expire, and when do I need to submit my renewal application?	5
6. What happens to this permit if my project is delayed or I do not install or modify my source?	6
7. What reports must I submit under this permit?	6
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?	6
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	6
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	7
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	7
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	7
13. Can I transfer this permit to a new owner or operator?.....	8
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	8
15. What happens if a portion of this permit is determined to be invalid?	8
B. Facility-Wide Terms and Conditions.....	9
C. Emissions Unit Terms and Conditions	12
1. J001, Liquid Truck Loading	13
2. P012, Compressor blowdowns.....	16
3. P013, Low Pressure Flare.....	20
4. P014, High Pressure Flare	24
5. P015, Pigging Emissions	29
6. P801, Fugitive Leaks.....	32
7. T001, Condensate and Produced Water Storage Tanks	39
8. Emissions Unit Group -1680 HP Compressor Engines:.....	46
9. Emissions Unit Group - Dehydration Units	57



Final Permit-to-Install and Operate
Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

Authorization

Facility ID: 0656005028
Application Number(s): A0052758, A0053657, A0053814
Permit Number: P0118418
Permit Description: Compressor Station with nine 1,680 hp natural gas engines, two 80 MMscfd dehydration units, maintenance events, low pressure flare, high pressure flare, fugitive leaks and three 400bbl-condensate tanks and three 400-bbl produced water tanks with associated truck loading.
Permit Type: Initial Installation
Permit Fee: \$3,800.00
Issue Date: 8/20/2015
Effective Date: 8/20/2015
Expiration Date: 6/5/2025
Permit Evaluation Report (PER) Annual Date: Apr 1 - Mar 31, Due May 15

This document constitutes issuance to:

Miller Compressor Station
51103 Twp Rd 847
Seneca Twp., OH 43788

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

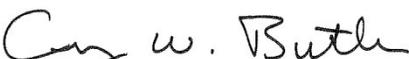
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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: P0118418

Permit Description: Compressor Station with nine 1,680 hp natural gas engines, two 80 MMscfd dehydration units, maintenance events, low pressure flare, high pressure flare, fugitive leaks and three 400bbl-condensate tanks and three 400-bbl produced water tanks with associated truck loading.

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

- Emissions Unit ID: J001**
 Company Equipment ID: J001
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID: P012**
 Company Equipment ID: P012
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID: P013**
 Company Equipment ID: P013
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID: P014**
 Company Equipment ID: P014
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID: P015**
 Company Equipment ID: P015
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID: P801**
 Company Equipment ID: P801
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable
- Emissions Unit ID: T001**
 Company Equipment ID: T001
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Group Name: 1680 HP Compressor Engines

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



Final Permit-to-Install and Operate
 Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

Emissions Unit ID:	P003
Company Equipment ID:	P003
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	P004
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
Emissions Unit ID:	P006
Company Equipment ID:	P006
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	P007
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	P008
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	P009
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

Group Name: 80 MMscfh Dehydration Unit

Emissions Unit ID:	P010
Company Equipment ID:	P010
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
Emissions Unit ID:	P011
Company Equipment ID:	P011
Superseded Permit Number:	
General Permit Category andType:	Not Applicable



Final Permit-to-Install and Operate
Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

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
Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

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) 2.
 - 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. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), for this project were not necessary because the maximum annual emissions for each toxic air containment as defined in OAC rule 3745-114-01 for the emissions units not exempted from modeling per Ohio EPA Engineering Guide #69, 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.
3. 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>.
4. Specific emissions units contained in this permit are subject to 40 CFR Part 60, Subpart JJJJ and OOOO (P001-P009, T001). 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.
5. This facility is subject to 40 CFR Part 63, Subpart HH. The dehydration units at this facility are exempt per 63.764(e)(ii) from the requirements of 63.764(d)(2) because actual average emissions of benzene from the glycol dehydration unit process venting to the atmosphere are less than 0.90 Mg/yr, as determined by the procedures specified in 63.772(b)(2) of 40 CFR 63, Subpart HH. The complete MACT requirements, including the MACT 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 of local air agency.
6. Within six months of startup of the facility, the permittee shall collect and analyze a representative sample of the incoming gas and liquids. The permittee shall use the results of the analysis to recalculate the emissions from the various components at the facility utilizing the GRI-GLYCalc or other standard software/emission factors. The permittee shall then compare the results of the revised



Final Permit-to-Install and Operate

Miller Compressor Station

Permit Number: P0118418

Facility ID: 0656005028

Effective Date: 8/20/2015

calculations with the calculations submitted with the air pollution control permit application(s). If the emissions results are significantly different from those results submitted with the application, then the applicant shall submit the revised calculations to the appropriate District Office or Local Air Authority. The applicant should provide all input data used, the basis for each input value used, and the results provided by the program.

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



Final Permit-to-Install and Operate
Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

C. Emissions Unit Terms and Conditions

1. J001, Liquid Truck Loading

Operations, Property and/or Equipment Description:

Produced water truck loading (2,076 bbl/day) and condensate truck loading (216 bbl/day) controlled by low pressure flare with 98.70% capture efficiency and 98% control efficiency.

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 June 30, 2008	Install a low pressure flare (P013) with a minimum of 98.7% capture and 98% control efficiency of volatile organic compounds (VOC) emissions. See b)(2)a. below
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/yr. See b)(2)b. below.

- (2) Additional Terms and Conditions
 - a. This BAT emissions limit applies until U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.
- c) Operational Restrictions
 - (1) The permittee shall operate the low pressure flare at all times during truck loadout for the control of VOC emissions and shall maintain the low pressure flare in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.
 - (2) In the event the low pressure flare is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain records of the throughput of the emissions unit, in bbl/d.
 - (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the low pressure flare, 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 low pressure flare 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 low pressure flare 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 low pressure flare 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, and any necessary maintenance or repairs that were completed, shall be maintained at the facility for not less than five years from the date the inspection 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 low pressure flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the low pressure flare 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.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Service 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 b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Design Efficiency:

Install a low pressure flare (P013) with a minimum of 98.7% capture and 98% control efficiency of VOC emissions.

Applicable Compliance Methods:

Compliance is demonstrated by installing and operating a low pressure flare with a minimum of 98.7% capture and 98% control efficiency for VOC emissions; compliance with capture efficiency is demonstrated by passing the 40 CFR Part 63, Subpart R annual leak test (not more than 1 inch water column pressure change in 5 minutes after pressurizing to 18 inches water followed by pulling a vacuum of 6 inches water), see AP-42 5.2.2.1.1.

g) Miscellaneous Requirements

- (1) None.

2. P012, Compressor blowdowns

Operations, Property and/or Equipment Description:

Compressor blowdowns with a maximum 1.81 mmscf/yr, controlled by high pressure flare (P014) with 100% capture and at least 98% control efficiency

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. and b)(1)c.

(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 June 30, 2008	Install a high pressure flare (P014) with 100% capture and a minimum of 98% control efficiency for volatile organic compound (VOC) emissions. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the PTE is less than 10 tons per year (tpy) taking into account the control from OAC rule 3745-31-05(E). See b)(2)b. below.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(E), as effective June 30, 2008	VOC emissions shall not exceed 0.25 tpy. Install and operate a high pressure flare (P014) with 100% capture and a minimum of 98% control efficiency for VOC emissions.

(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.

c) Operational Restrictions

- (1) The permittee shall operate the high pressure flare at all times compressor blowdowns are being completed for the control of VOC emissions and shall maintain the high pressure flare in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.
- (2) In the event the high pressure flare is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records for compressor blowdown events:
 - a. the date, number, and type of each compressor blowdown event;
 - b. percent VOC fraction in the gas stream obtained by representative sampling and analysis (e.g., gas chromatography);
 - c. total volume of gas emitted from each blowdown event; and
 - d. total volume of gas emitted from all blowdown events per year.
- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the high pressure flare, 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 high pressure flare 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 high pressure flare 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 high pressure flare 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, and any necessary maintenance or repairs that were completed, shall be maintained at the facility for not less than five years from the date the inspection and shall be made available to the appropriate Ohio EPA District Office or local air upon request.

- (6) The permittee shall maintain records that document any time periods when the high pressure flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the high pressure flare 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.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Service 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Design Efficiency:

Install a high pressure flare (P014) with 100% capture and a minimum of 98% design control efficiency for VOC.

Install and operate a high pressure flare (P014) with 100% capture and a minimum of 98% design control efficiency for VOC.

Applicable Compliance Method:

Compliance is demonstrated by flare manufacturer's design efficiency with 100% capture and at least 98% design control efficiency.

b. Emissions Limitation:

VOC emissions shall not exceed 0.25 tpy.

Applicable Compliance Method:

The ton per year allowable was determined by the following calculation and the information provided in the permittee's application.

$$\frac{1,806,948 \text{ scf}}{\text{yr}} * \frac{0.246 \text{ lb VOC}}{\text{lb gas}} * \frac{0.0570 \text{ lb gas}}{\text{scf}} * \frac{1 \text{ ton}}{2000 \text{ lbs}} * (1 - 0.98) = 0.25 \text{ tpy}$$

Compliance is demonstrated by multiplying the actual amount of scf per year and most recent gas analysis as determined by the records required in d)(1) and by the flare manufacturer's design efficiency as provided in the application.

g) Miscellaneous Requirements

(1) None.

3. P013, Low Pressure Flare

Operations, Property and/or Equipment Description:

Low pressure flare to control working and breathing emissions from tanks (T001), emissions from condensate and produced water truck loading (J001), still vent/BTEX vent of dehydration units (P010, P011), and VRU blowdowns and pilot operating 8,760 hr/yr (2,055.1 MMBtu/yr maximum), flare 23,285 MMBtu/yr, total (25,340.1 MMBtu/yr maximum); low pressure flare rating 1.0 MMBtu/hr maximum

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 June 30, 2008	NO _x emissions shall not exceed 0.03 ton/m as a rolling, 12-month average. CO emissions shall not exceed 0.14 ton/m as a rolling, 12-month average. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Treatment (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO _x and CO emissions from this air contaminant source since the potential to emit is less than 10 ten tons per year (tpy). See b)(2)b. below.

- (2) Additional Terms and Conditions
 - a. These BAT emissions limit applies until US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.
- c) Operational Restrictions
 - (1) The permittee shall burn only natural gas in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain records of the number of scf/m to the low pressure flare.
 - (2) 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.
 - (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, 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.
 - (4) The permittee shall conduct periodic inspections of the flare 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 Ohio EPA upon request.
 - (5) In addition to the recommended periodic inspections, not less than once each calendar year, the permittee shall conduct a comprehensive inspection of the flare 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.
 - (6) The permittee shall document each inspection (periodic and annual) of the flare 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, and any necessary maintenance or repairs that were completed, shall be maintained at the facility for not less than five years from the date the inspection and shall be made available to the appropriate Ohio EPA District Office or local air upon request.

- (7) The permittee shall maintain records that document any time periods when the flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the flare were 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 Ohio EPA upon request.
- (8) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measure and record the temperature of the flare stack when the organic vapors are being routed to the flare, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained for a period of no less than five years. These records can be kept electronically, provided they can be made available to the appropriate Ohio EPA District Office or local air agency.

e) Reporting Requirements

- (1) 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.
- (2) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Service online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (3) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

NO_x emissions shall not exceed 0.03 ton/m as a rolling, 12-month average.

Applicable Compliance Method:



The emissions limitation was derived by the following calculations based on the emissions factors from AP-42, Table 13.5-1 and worst case scenario in the permittee's application:

Flare Emissions:

$$\frac{1 \text{ MMBtu}}{\text{hr}} * \frac{0.068 \text{ lb NO}_x}{\text{MMBtu}} * \frac{8760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.03 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

- 1 MMBtu = maximum hourly flare rating
- 0.068 = EF (AP-42, Table 13.5-1)

b. Emissions Limitation:

CO emissions shall not exceed 0.14 ton/m as a rolling, 12-month average.

Applicable Compliance Method:

The emissions limitation was derived by the following calculations based on the emissions factors from AP-42, Table 13.5-1 and the worst case scenario in the permittee's application:

$$\frac{1 \text{ MMBtu}}{\text{hr}} * \frac{0.37 \text{ lb CO}}{\text{MMBtu}} * \frac{8760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.14 \frac{\text{ton}}{\text{m rolling 12}}$$

- 1 MMBtu = maximum hourly flare rating
- 0.068 = EF (AP-42, Table 13.5-1)

g) Miscellaneous Requirements

- (1) None.

4. P014, High Pressure Flare

Operations, Property and/or Equipment Description:

High pressure flare to control emissions from compressor blowdowns, pilot operating 8,760 hr/yr (569.4 MMBtu/yr maximum), flare (2,480.4 MMBtu/yr maximum), total (3,049.8 MMBtu/yr maximum) plus any emergency shutdown (ESD) events; high pressure flare rating 8.868 MMBtu/hr maximum

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 June 30, 2008	Nitrogen oxide (NO _x) emissions shall not exceed 0.05 ton/m as a rolling, 12-month average. Carbon dioxide (CO) emissions shall not exceed 0.08 ton/m as a rolling, 12-month average. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO _x and CO emissions from this air contaminant source since the PTE is less than 10 TPY. See b)(2)b. below.

- (2) Additional Terms and Conditions
 - a. This BAT emissions limit applies until U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.
- c) Operational Restrictions
 - (1) The permittee shall burn only natural gas in this emissions unit.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain records of the amount of waste gas in MMscf per year to the high pressure flare.
 - (2) 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.
 - (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, 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.
 - (4) The permittee shall conduct periodic inspections of the flare 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 Ohio EPA upon request.
 - (5) In addition to the recommended periodic inspections, not less than once each calendar year, the permittee shall conduct a comprehensive inspection of the flare 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.
 - (6) The permittee shall document each inspection (periodic and annual) of the flare 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, and any necessary maintenance or repairs that were completed, shall be maintained at the facility for not less than five years from the date the inspection and shall be made available to the appropriate Ohio EPA District Office or local air upon request.

- (7) The permittee shall maintain records that document any time periods when the flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the flare were 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 Ohio EPA upon request.

e) Reporting Requirements

- (1) 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.
- (2) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Service online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (3) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

NO_x emissions shall not exceed 0.05 ton/m as a rolling, 12-month average.

Applicable Compliance Method:

The emissions limitation was derived by the following calculations based on the emissions factors and other information in the permittee's application:

$$\frac{2,480.4 \text{ MMBtu}}{\text{yr}} * \frac{0.068 \text{ lb NO}_x}{\text{MMBtu}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.05 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

2,480.4 = maximum throughput for flare
0.068 = EF (AP-42, Table 13.5-1)

Pilot Emissions:

$$\frac{569.4 \text{ MMBtu}}{\text{yr}} * \frac{100 \text{ lb NOx}}{\text{MMscf}} * \frac{\text{scf}}{1,020 \text{ Btu}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}}$$

$$= 0.0003 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

- 596.4 = maximum throughput
100 = EF (AP-42, Table 1.4)
1,020 = standard heating value of natural gas

Total Emissions:

Flare Emissions + Pilot Emissions = 0.09 ton/m, as a rolling, 12-month average.

Ongoing compliance shall be demonstrated using the above equation and the recordkeeping in d) above.

b. Emissions Limitation:

CO emissions shall not exceed 0.04 ton/m as a rolling, 12-month average.

Applicable Compliance Method:

The emissions limitation was derived by the following calculations based on the emissions factors and other information in the permittee's application:

Flare Emissions:

$$\frac{2,480.4 \text{ MMBtu}}{\text{yr}} * \frac{0.37 \text{ lb CO}}{\text{MMBtu}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.04 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

- 2,480.4 = maximum throughput
0.37 = EF (AP-42, Table 13.5-1)
155,952.3 = maximum monthly throughput, scf/m, calculated as follows:
(2,480.4 MMBtu/yr) x (scf/1,325.4 Btu) x (yr/12 m rolling) x (10⁶/MM) = 155,952.3 scf/m rolling

Pilot Emissions:

$$\frac{569.4 \text{ MMBtu}}{\text{yr}} * \frac{84 \text{ lb CO}}{\text{MMscf}} * \frac{\text{scf}}{1,020 \text{ Btu}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}}$$

$$= 0.002 \frac{\text{ton}}{\text{m rolling 12}}$$



Where:

569.4 = maximum throughput
84 = EF (AP-42, Table 1.4)
1,020 = standard heating value of natural gas

Total Emissions:

Flare Emissions + Pilot Emissions = 0.004 ton/m, as a rolling, 12-month average.

Ongoing compliance shall be demonstrated using the above equation and the recordkeeping in d) above.

- g) Miscellaneous Requirements
 - (1) None.

5. P015, Pigging Emissions

Operations, Property and/or Equipment Description:

Pigging activities with approximately 52 events a year at 120,482 scf maximum.

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 June 30, 2008	<p>Volatile organic compounds (VOC) shall not exceed 0.07 ton/month averaged over a 12-month, rolling period.</p> <p>See b)(2)a. below.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the PTE is less than 10 TPY.</p> <p>See b)(2)b. below.</p>

- (2) Additional Terms and Conditions
 - a. This BAT emissions limit applies until U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio State Implementation Plan (SIP).
 - b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.
- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain the following records for pigging events:
 - a. the date of each pigging event;
 - b. percent VOC fraction in the gas stream obtained by representative sampling and analysis (e.g., gas chromatography);
 - c. total volume of gas emitted from each pigging event; and
 - d. total volume of gas emitted from all pigging events per year.
- e) Reporting Requirements
 - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Service 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 b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emissions Limitation:

VOC emissions shall not exceed 0.07 ton per month as a rolling, 12-month average.



Applicable Compliance Method:

Compliance with the initial emissions limitation was derived by the following calculation based on the inlet gas analysis from the permittee's application:

$$52 \frac{\text{events}}{\text{year}} * 2,317 \frac{\text{scf}}{\text{event}} * 0.0570 \frac{\text{lb}}{\text{scf}} * 0.246 \frac{\text{lb VOC}}{\text{lb}} * \frac{\text{ton}}{2000 \text{ lbs}} * \frac{\text{year}}{12 \text{ months}}$$

Compliance is demonstrated by the multiplying the actual amount of scf per year emitted and most recent gas analysis as determined by records required in d)(1).

g) Miscellaneous Requirements

- (1) None.

6. P801, Fugitive Leaks

Operations, Property and/or Equipment Description:

Fugitive equipment leaks and scheduled maintenance venting (31,730 scf/yr maximum [scheduled maintenance venting only])

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. and b)(1)c.

(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 June 30, 2008	Develop and implement a site-specific leak detection and repair program for ancillary equipment as described in c) below. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the volatile organic compounds (VOC) emissions from this air contaminant source since the calculated annual emissions rate is less than 10 tons per year (TPY) taking into account the voluntary restriction from OAC rule 3745-31-05(E). See b)(2)b. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-31-05(E), as effective June 30, 2008	Fugitive VOC emissions shall not exceed 3.41 ton per year. Develop and implement a site-specific leak detection and repair program for ancillary equipment as described in c) below.

(2) Additional Terms and Conditions

- a. The BAT emission limit applies until US EPA approves 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 US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.

c) Operational Restrictions

(1) Ancillary Equipment Leak Detection and Repair Program

The permittee shall develop and implement a leak detection and repair program designed to monitor and repair leaks from ancillary equipment covered by this permit, including each pump, compressor, pressure relief device, connector, valve, flange, vent, cover, any bypass in the closed vent system, and each storage vessel. This program shall meet the following requirements:

- a. Leaks shall be detected by the use of either a “Forward Looking Infra-Red” (FLIR) camera or an analyzer meeting U.S. EPA Method 21 of 40 CFR Part 60, Appendix A.
- b. An initial monitoring shall be completed within 30 days of startup and quarterly thereafter for a period of four consecutive quarters (1 year).
- c. If following the initial four consecutive quarters, less than or equal to 2.0% of the ancillary equipment are determined to be leaking during the most recent quarterly monitoring event, then the frequency of monitoring can be reduced to semi-annual.
- d. If following two consecutive semi-annual periods, less than 2.0% of the ancillary equipment are determined to be leaking during the most recent semi-annual monitoring event, then the frequency of the monitoring can be reduced to annual.
- e. If more than or equal to 2.0% of the ancillary equipment are determined to be leaking during any one of the semi-annual or annual monitoring events, then the frequency of monitoring shall be returned to quarterly.

- f. The program shall require the first attempt at repair within five (5) calendar days of determining a leak.
 - g. The program shall require that the leaking component is repaired within 30 calendar days after the leak is detected.
 - h. The program shall allow for the delayed repair of a leaking component following the language found in 40 CFR 60.5416(c)(5).
 - i. The program shall following the Monitoring and Record Keeping requirements described in paragraph 5.d) of this permit.
- (2) In the event that a leak or defect is detected in the cover, closed vent system, process equipment, or control device, the permittee shall make a first attempt at repair no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 30 calendar days after the leak is detected as allowed in 40 CFR 60.5416(c)(4). Any delay of repair of a leak or defect shall meet the requirements of 40 CFR 60.5416(c)(5).
- d) **Monitoring and/or Recordkeeping Requirements**
- (1) **Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing FLIR Cameras**
- a. Leaks shall be determined by visually observing each ancillary component through the FLIR camera to determine if leaks are visible.
 - b. The following information shall be recorded during each leak inspection:
 - i. the date the inspection was conducted;
 - ii. the name of the employee conducting the leak check;
 - iii. the identification of any component that was determined to be leaking;
 - iv. the date the first attempt to repair the component was made;
 - v. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);
 - vi. the date the component was repaired and determined to no longer be leaking;
 - vii. the total number of components that are leaking; and
 - viii. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of ancillary components capable of developing a leak, and multiplied by 100.

- c. The permittee shall maintain records that demonstrate the FLIR camera is operated and maintained in accordance with the manufacturer's operation and maintenance instructions.
 - d. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- (2) Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing a Method 21 Analyzer

- a. Leaks shall be measured by utilizing U.S. EPA Method 21 (40 CFR Part 60, Appendix A). All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm or 10,000 ppm (as applicable) for determining compliance.
- b. A component is considered to be leaking if the instrument reading is equal to or greater than:

pressure relief device in gas/vapor service	10,000 ppm
pressure relief device in light liquid service	10,000 ppm
pumps in light liquid service	10,000 ppm
compressor	500 ppm
sampling connection system*	*
open ended valves or lines**	**
valves in gas/vapor and light liquid service	10,000 ppm
closed vent system	500 ppm
connectors	10,000 ppm
all other ancillary and associated equipment in VOC service	10,000 ppm

* must be equipped with a closed-purge, closed-loop, or closed-vent system

** must be equipped with a cap, blind flange, plug, or a second valve

- c. The following information shall be recorded during each leak inspection:
 - i. the date the inspection was conducted;
 - ii. the name of the employee conducting the leak check;

- iii. the identification of any component that was determined to be leaking (company ID and component type (flange, pump, etc.);
 - iv. the date the first attempt to repair the component was made;
 - v. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);
 - vi. the date the component was repaired and determined to no longer be leaking;
 - vii. the total number of components that are leaking; and
 - viii. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of ancillary components capable of developing a leak, and multiplied by 100.
- d. The permittee shall maintain records that demonstrate the Method 21 analyzer is operated and maintained in accordance with the manufacturer's operation and maintenance instructions.
 - e. In order to calibrate the analyzer, the following calibration gases shall be used:
 - i. zero air, which consists of less than 10 ppm of hydrocarbon in air; and
 - ii. a mixture of air and methane or n-hexane at a concentration of approximately, but less than, 10,000 ppm of methane or n-hexane.
 - f. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- (3) The permittee shall perform daily inspections, each day that an operator is at the facility and when the facility is in operation, for indications of releases from the pressure relief valves, and any olfactory, visual, or auditory indications of equipment leaks. The positive indication of a release or a leak shall be noted in an operations log, along with the following information:
- a. the name of the inspector;
 - b. the date and time inspected;
 - c. the identification of the pressure relief valve that released and/or piece of equipment that leaked;
 - d. the estimated or calculated duration of the pressure relief valve release and/or equipment leak and the estimated emission totals; and
 - e. any corrective actions taken to minimize or eliminate the release or leak.

(4) The permittee shall maintain records of the scf/m for scheduled maintenance venting.

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) Supplement to the PER for the Ancillary Equipment Leak Detection and Repair Program

For each inspection that occurred during the year, the permittee shall submit the following information with the annual PER from data collected by the ancillary equipment leak detection and repair program:

- a. the date of the inspection;
- b. the number of components determined to be leaking;
- c. the company ID and component type (flange, pump, etc.) of each leaking component;
- d. the total number of components at the site;
- e. the percent of components determined to be leaking;
- f. a list of all components that have not been repaired due to a delay of repair and the reason for the delay; and
- g. a notification indicating if the permittee has changed future inspection frequencies based on the percent of components leaking.

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:

Fugitive VOC emissions shall not exceed 3.41 tpy.

Applicable Compliance Method:

Compliance with the fugitive VOC emissions limitation shall be demonstrated by the following calculation based on the emissions factors provided in Table 2-4 of US EPA's Protocol for Equipment Leak Emission Estimates (11/95) for

components in gas, light oil, and water/oil service and the information provided in the permittee's application:

$$\left(\sum (\text{component count} * \text{max leak rates} * \text{VOC fraction} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{1 \text{ ton}}{2,000 \text{ lb}}) \right) + \left(\frac{31,730 \text{ scf}}{\text{yr}} * \frac{0.057 \text{ lb}}{\text{scf}} * \frac{\text{ton}}{2,000 \text{ lb}} * 0.246 \frac{\text{lb VOC}}{\text{lb gas}} \right) \leq 3.14 \text{ tons/yr}$$

Where component counts, max leak rates, VOC fractions, and scheduled maintenance venting parameters are based on the data provided in the permittee's application or most recent component leaking rate as detected in d) above.

g) Miscellaneous Requirements

- (1) None.

7. T001, Condensate and Produced Water Storage Tanks

Operations, Property and/or Equipment Description:

Condensate and produced water storage tanks, three 400 bbl tanks for produced water and three 400 bbl tanks for the condensate; vapor recovery unit (VRU) with 100% capture of flash emissions recycled back into the system and low pressure flare (P013) with 100% capture and a 98% control efficiency of working and breathing emissions

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. and b)(1)c.

(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 June 30, 2008	Install a low pressure flare (P013) with a 100% capture efficiency and a minimum of 98% control efficiency of working and breathing losses of volatile organic compound (VOC) emissions. Install a VRU with a 100% capture and control of flash VOC emissions. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this contaminant source since the calculated annual emission rate is less than 10 TPY taking into account the

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		control from OAC rule 3745-31-05(E). See b)(2)b. below.
c.	OAC rule 3745-31-05(E), as effective June 30, 2008	VOC emissions shall not exceed 0.34 TPY. Install and operate a low pressure flare (P013) with a 100% capture efficiency and a minimum of 98% control efficiency of working and breathing losses of VOC emissions. Install and operate a VRU with a 100% capture and control of flash VOC emissions.
d.	40 CFR Part 60, Subpart OOOO (60.5360-60.5430)	Each tank series at this facility has a PTE greater than 6 TPY and are, therefore, subject to the requirements of 40 CFR Part 60, Subpart OOOO. Following the compliance date of October 15, 2013, each storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to exceed 6 TPY, shall reduce VOC emissions by 95% or greater.
e.	40 CFR Part 60, Subpart A (60.1-60.19)	General provisions may apply.

(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until U.S. EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the less than 10 TPY BAT exemption) into the Ohio SIP.

c) Operational Restrictions

- (1) Working and breathing vapors from the condensate and produced water tanks shall be vented to and controlled at all times by the low pressure flare.

- (2) Flash emissions from the condensate and produced water tanks shall be vented to the VRU at all times, unless the VRU is down in which these emissions shall be routed to the low pressure flare.
- (3) The permittee shall operate the VRU and low pressure flare at all times in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.
- (4) The permittee shall install and operate a system to automatically close the shut-down valves for the condensate inlet line(s) to the condensate tanks in order to prevent the tank(s) from uncontrolled venting. This system shall continuously monitor the tank pressure, the liquid level, or both.
- (5) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subparts OOOO, including the following sections:

60.5411(b)(1)	Cover and all openings shall form a continuous impermeable barrier over surface area of the liquid in storage vessels
60.5411 (b)(2)	Except when adding/removing material; inspections; sampling; maintain and repair equipment in unit; and vented to closed-vent system
60.5411(b)(3)	Use of weighted mechanism and gasket on hatches
60.5411(c)(1)	Design closed vent system to route to control device or process
60.5411(c)(2)	Closed vent system must have no emissions and operate greater than 95% of the year
60.5411(c)(3)	Bypass devices must have alarms or valves with car-seal or lock-and-key installed at inlets.

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

- (1) The permittee shall maintain records of the throughput of the emissions unit, in bbl/d.
- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the VRU and low pressure flare 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 VRU and low pressure flare 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 VRU and low pressure flare, 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 VRU and low pressure flare 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, and any necessary maintenance or repairs that were completed, shall be maintained at the facility for not less than five years from the date the inspection and shall be made available to the appropriate Ohio EPA District Office or local air upon request.
- (6) The permittee shall maintain records that document any time periods when the VRU and low pressure flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the low pressure flare 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 collect a pressurized condensate sample within 30 days of the first facility startup and perform a detailed gas analysis in order to determine the VOC and HAP composition. This sampling shall be repeated on a semiannual basis.
- (8) The permittee shall record the following information on a monthly basis:
 - a. the number of instances of valve shutdowns from the inlet separator that result from the condensate tank pressure or condensate liquid level reaching the value established in c)(4), including the date and time, duration and reason; and
 - b. the number of uncontrolled releases to the atmosphere that result from the condensate tank pressure or condensate liquid level exceeding the values established in c)(4). Details of these releases shall be immediately provided to the Ohio EPA per OAC rule 3745-15-06(B).

- (9) The permittee shall properly install, operate, and maintain a continuous pressure monitor and recorder that measure and record the pressure and/or the liquid level within the condensate tank when the emissions unit is in operation, including periods of startup and shutdown. The permittee shall record the pressure/liquid level on a continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained for a period of no less than five years. These records can be kept electronically, provided they can be made available to the appropriate Ohio EPA District Office or local air agency.
- (10) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measure and record the temperature of the flare stack when the organic vapors are being routed to the flare, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained for a period of no less than five years. These records can be kept electronically, provided they can be made available to the appropriate Ohio EPA District Office or local air agency.
- (11) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subparts and OOOO, including the following sections:

60.5395(g), 60.5420(c)(5)	Keep records of VOC emissions determination and deviations from operational restrictions
60.5416(c)(6)-(8)	Keep records of every vent and cover inspection; records of bypass alarm or bypass key used
60.5416(c)(13)	Records of inspections, corrective actions, manufacturers' operating instructions, procedures, and maintenance schedule; as well as records of EPA Method 22, 20 CFR part 60, appendix A, section 11

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 comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts OOOO, including the following sections:

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
60.4245(b)(6), 605365(e)	Submit reports with location of vessels, VOC emission rates, deviations and signatory requirements
60.4245(b)(6)(vi) and (vii), 60.5395(f)(1)(ii), 60.5395(f)(3)	Identification of storage units removed and restored to service

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. Design Efficiency:

Install a low pressure flare (P013) with a 100% capture efficiency and a minimum of 98% control efficiency of working and breathing losses of VOC emissions.

Install and operate a low pressure flare (P013) with a 100% capture efficiency and a minimum of 98% control efficiency of working and breathing losses of VOC emissions.

Install a VRU with a 100% capture and control of flash VOC emissions.

Install and operate VRU with 100% capture and control of flash VOC emissions.

Applicable Compliance Method:

Compliance shall be demonstrated by a manufacturer's design efficiency for the low pressure flare of 100% capture and a minimum of 98% control efficiency for VOC emissions and the 100% capture and recycle of the flash emission as stated in the permittee's application.

b. Emissions Limitation:

VOC emissions shall not exceed 0.34 TPY.

Applicable Compliance Method:

The annual emission limitation was derived by the following equation and based on the emissions factors and other information in the permittee's application:

$$\frac{16.88 \text{ tons VOC}}{\text{yr}} (1 - 0.98) = 0.34 \text{ TPY}$$



Final Permit-to-Install and Operate
Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

Where:

16.88 = EF (Promax)
0.98 = control efficiency

Compliance with the emissions limitation for VOC shall be demonstrated using EP-Tanks, Promax, or another Ohio EPA approved program, and the actual liquid throughput for the records required by d)(1) above.

g) Miscellaneous Requirements

(1) None.

8. Emissions Unit Group -1680 HP Compressor Engines:

EU ID	Operations, Property and/or Equipment Description
P001	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P002	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P003	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P004	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P005	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P006	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P007	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P008	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.
P009	Waukesha 1,680 bhp (L7044GSI) 4-stroke natural gas fired, rich burn, compressor engine (model year 2014) with a catalyst controlling 98.1% for NOx, 95.5% for CO, 85% for total HAPs and 88% for formaldehyde.

- 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)a. and b)(1)c.
 - (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	<p>Install an engine with a catalyst designed to meet 0.25 g/hp-hr for nitrogen oxide (NO_x) emissions.</p> <p>Install an engine with a catalyst designed to meet 0.50 g/hp-hr for carbon monoxide (CO) emissions.</p> <p>Install an engine with a catalyst designed to meet 0.16 g/hp-hr for volatile organic compounds (VOC) emissions.</p> <p>Particulate emissions (PE) shall not exceed 0.007 ton per month as averaged over a 12-month, rolling period.</p> <p>See b)(2)a. below.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/1/2008	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC and PE 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 NO_x 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).</p> <p>See b)(2)b. below.</p>
c.	OAC rule 3745-31-05(E), as effective 6/1/2008	<p>Install and operate an engine with a catalyst designed to meet 0.25 g/hp-hr for nitrogen oxide (NO_x) emissions.</p> <p>NO_x emission shall not exceed 4.10 tpy.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Install and operate a catalyst that reduces CO emissions by at least 95.5%.</p> <p>CO emission shall not exceed 8.11 tpy.</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 segment subject to the maintenance, operational, monitoring, recordkeeping, and reporting measures specified in this section.]</p>	<p>See c)(4), d)(7) and e)(5).</p>
f.	<p>40 CFR Part 60.1 – 19 (40 CFR 60.4246 and 60.5425)</p>	<p>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.</p>
g.	<p>OAC rule 3745-17-07(A)(1)</p>	<p>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.</p>
h.	<p>OAC rule 3745-17-11(B)(5)(b)</p>	<p>PE shall not exceed 0.062 lb/MMBtu actual heat input.</p>
i.	<p>OAC rule 3745-18-06(E)</p>	<p>This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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 catalyst for control of NO_x, CO, VOC 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 catalyst 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
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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 catalyst, 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's catalyst 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's catalyst 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 catalyst 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 catalyst 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 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 a catalyst that shall have at least 98.1% control efficiency for NO_x emissions.

Install and operate a catalyst that reduces NO_x emissions by at least 98.1%.

NO_x emission shall not exceed 4.10 tpy.

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, 13.6 g/bhp-hr, specified in the manufacturer's engine specification sheet obtained from Caterpillar,

HP = the power output rating of this unit, 1,680 bhp

CE = control efficiency, 98.1%

b. Emissions Limitation:

Install a catalyst that shall have at least 95.5% control efficiency for CO emissions.

Install and operate a catalytic convertor that reduces CO emissions by at least 95.5%.

CO emission shall not exceed 8.11 tpy.

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:



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

Where:

- Ef= emission factor, 11.2 g/bhp-hr, specified in the manufacturer’s engine specification sheet obtained from Caterpillar,
- HP = the power output rating of this unit, 1,680 bhp
- CE = control efficiency, 95.5%

c. Emissions Limitation:

VOC emissions shall not exceed 0.22 ton per month averaged over a twelve-month, rolling period.

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:

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

Where:

- Ef= emission factor, 0.16 g/bhp-hr, specified in the manufacturer’s engine specification sheet obtained from Caterpillar,
- HP = the power output rating of this unit, 1,680 bhp

d. 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).

e. Emissions Limitation:

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

Applicable Compliance Method:



Final Permit-to-Install and Operate
Miller Compressor Station
Permit Number: P0118418
Facility ID: 0656005028
Effective Date: 8/20/2015

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

f. 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).

g. 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 0.005 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).

h. 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. b)(1)c. and b)(1)d. for VOC, NO_x and CO.

The following test methods shall be employed to demonstrate compliance with the the emissions limitations and design standards for NO_x, CO, and VOC:

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.

- c. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
 - d. 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.
 - e. 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).
 - f. 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.
 - g. 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.

9. Emissions Unit Group - Dehydration Units

EU ID	Operations, Property and/or Equipment Description
P010	80 MMSCFD Dehydration Unit with a 1.5 MMBTU Reboiler, Still Vent/BTEX Vent with Flash Tank Off-Gas controlled by low-pressure flare (P013) with 100% capture and 98.0% control of VOC emissions
P011	80 MMSCFD Dehydration Unit with a 1.5 MMBTU Reboiler, Still Vent/BTEX Vent with Flash Tank Off-Gas controlled by low-pressure flare (P013) with 100% capture and 98.0% control of VOC emissions

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)a. and b)(1)c.

(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 June 30, 2008	Install a system to capture 100% of volatile organic compound (VOC) emissions where regenerator still vent/BTEX unit controlled by low pressure flare (P013) with a minimum of 98.0% control efficiency and flash gas emissions are either used for fuel in the reboiler or routed to the station inlet through the vapor recovery unit (VRU). See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to VOC emissions from this contaminant source

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>since the calculated annual emission rate is less than 10 TPY 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), as effective June 30, 2008	<p>VOC emissions shall not exceed 0.14 TPY.</p> <p>Install and operate a system to capture 100% of volatile organic compound (VOC) emissions where regenerator still vent/BTEX unit controlled by low pressure flare (P013) with a minimum of 98.0% control efficiency and the flash gas emissions are either used for fuel in the reboiler or routed to the station inlet through the VRU.</p>
d.	<p>40 CFR Part 63, Subpart HH (40 CFR 63.760-63.779)</p> <p>[In accordance with 40 CFR 63.760(a)(2)-(3), this emissions unit processes, upgrades, or stores natural gas or hydrocarbon liquids prior to the point of custody transfer from the facility.]</p>	See b)(2)c. below.
e.	40 CFR 63.1-15 (40 CFR 63.764)	Table 2 of Subpart HH of 40 CFR Part 63 shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. This 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. The dehydration unit located at this facility is subject to 40 CFR Part 63, Subpart HH, NESHAP from Oil and Natural Gas Production Facilities. The dehydration units at this facility are exempt per 63.764(e)(ii) from the requirements of 63.764(d)(2) because actual average emissions of benzene from the glycol

dehydration unit process venting to the atmosphere are less than 0.90 Mg/yr, as determined by the procedures specified in 63.772(b)(2) of 40 CFR 63, Subpart HH.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain a record on a quarterly basis of natural gas flow rate (mmscf/quarter), number of hours operated, inlet temperature and pressure, inlet gas composition upstream of the absorber sampled in accordance with GPA Method 2166 and analyzed consistent with GPA extended method 2286, lean glycol circulation rate, flash tank temperature and pressure (if applicable), and dry gas water content (lb H₂O/MMscf) at a point directly after existing the dehydration column.
- (2) 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.
- (3) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, 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.
- (4) The permittee shall conduct periodic inspections of the flare 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 Ohio EPA upon request.
- (5) In addition to the recommended periodic inspections, not less than once each calendar year, the permittee shall conduct a comprehensive inspection of the flare 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.
- (6) The permittee shall document each inspection (periodic and annual) of the flare 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, and any necessary maintenance or repairs that were completed, shall be maintained at the facility for not less than five years from the date the inspection and shall be made available to the appropriate Ohio EPA District Office or local air upon request.

- (7) The permittee shall maintain records that document any time periods when the flare was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the flare were 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 Ohio EPA upon request.
- (8) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measure and record the temperature of the flare stack when the organic vapors are being routed to the flare, including periods of startup and shutdown. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained for a period of no less than five years. These records can be kept electronically, provided they can be made available to the appropriate Ohio EPA District Office or local air agency.
- (9) The composition of the gas being processed may vary due to the nature of the industry. The company will sample the gas semiannually to perform a detailed gas analysis in order to determine if the composition has changed such that it will result in an increase in emissions of any toxic air contaminant. 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.
- (10) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 63, Subpart HH, including the following sections:

63.760(a)(1)(ii)	Maintain records of the annual facility natural gas or hydrocarbon liquid throughput for each year.
63.774(d)(1)(ii) and 63.772(b)(2)	Maintain records of the actual average benzene emissions per year as determined in accordance with 63.772(b)(2).

e) Reporting Requirements

- (1) 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.
- (2) 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.

- (3) 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 b) of these terms and conditions shall be determined in accordance with the following methods:

a. Design Efficiency:

Install a system to capture 100% of volatile organic compound (VOC) emissions where regenerator still vent/BTEX unit controlled by low pressure flare (P013) with a minimum of 98.0% control efficiency and the flash gas emissions are either used for fuel in the reboiler or routed to the station inlet through the VRU.

Install and operate a system to capture 100% of volatile organic compound (VOC) emissions where regenerator still vent/BTEX unit controlled by low pressure flare (P013) with a minimum of 98.0% control efficiency and flash gas emissions are either used for fuel in the reboiler or routed to the station inlet through the VRU.

Applicable Compliance Method:

Compliance is determined by the manufacturer's design efficiency to capture 100% of VOC emissions, where regenerator still vent/BTEX unit VOC emissions are routed to the low pressure flare (P013) which has a minimum of 98% control efficiency and flash tank VOC emissions are 100% captured and recirculated back to the head of the facility.

b. Emissions Limitation:

VOC emissions shall not exceed 0.14 TPY.

Applicable Compliance Method:

The permittee shall determine compliance with the tpy VOC emissions (excludes methane and ethane) by using the GRI-GLYCalc™ model, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual or other Ohio EPA approved software. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit(s) and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1).

g) Miscellaneous Requirements

- (1) None.