



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

9/25/2013

Certified Mail

Mrs. Kristin Ikard  
Kilgore Compressor Station  
PO BOX 54342  
Oklahoma City, OK 73154

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0210002039  
Permit Number: P0114925  
Permit Type: Initial Installation  
County: Carroll

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. 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 PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
77 South High Street, 17th Floor  
Columbus, OH 43215

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

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

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

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

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

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

If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Ohio EPA-NEDO; Pennsylvania; West Virginia



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Kilgore Compressor Station**

Facility ID:	0210002039
Permit Number:	P0114925
Permit Type:	Initial Installation
Issued:	9/25/2013
Effective:	9/25/2013





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Kilgore Compressor Station

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## Authorization

Facility ID: 0210002039  
Facility Description:  
Application Number(s): A0047914, A0048441, A0048747, A0048853  
Permit Number: P0114925  
Permit Description: Greenfield natural gas compressor station to gather and compress field gas mainly gathered from the Utica and Marcellus shale formations. The Kilgore CF will process up to 300 million standard cubic feet per day (mmscfd) of field gas.  
Permit Type: Initial Installation  
Permit Fee: \$5,275.00  
Issue Date: 9/25/2013  
Effective Date: 9/25/2013

This document constitutes issuance to:

Kilgore Compressor Station  
Pontiff Rd  
Kilgore, OH 43988

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

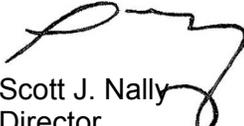
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office  
2110 East Aurora Road  
Twinsburg, OH 44087  
(330)425-9171

The above named entity is hereby granted a Permit-to-Install for the 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 emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0114925  
 Permit Description: Greenfield natural gas compressor station to gather and compress field gas mainly gathered from the Utica and Marcellus shale formations. The Kilgore CF will process up to 300 million standard cubic feet per day (mmscfd) of field gas.

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

<b>Emissions Unit ID:</b>	<b>J001</b>
Company Equipment ID:	Truck Loading
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>J002</b>
Company Equipment ID:	Methanol Loading
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P014</b>
Company Equipment ID:	Flare 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P015</b>
Company Equipment ID:	Flare 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P016</b>
Company Equipment ID:	Flare 3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P017</b>
Company Equipment ID:	Compressor Blowdowns
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P023</b>
Company Equipment ID:	P023
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P801</b>
Company Equipment ID:	Equipment Leaks
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T001</b>
Company Equipment ID:	Storage Tank #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T002</b>
Company Equipment ID:	Storage Tank #2
Superseded Permit Number:	



General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T003</b>
Company Equipment ID:	Storage Tank #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T004</b>
Company Equipment ID:	Storage Tank #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T005</b>
Company Equipment ID:	Storage Tank #5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T006</b>
Company Equipment ID:	Storage Tank #6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T007</b>
Company Equipment ID:	Storage Tank #7
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>T008</b>
Company Equipment ID:	Storage Tank #8
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

**Group Name: Compressor Engines**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	Compressor Engine 1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	Compressor Engine 2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	Compressor Engine 3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P004</b>
Company Equipment ID:	Compressor Engine 4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	Compressor Engine 5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P006</b>
Company Equipment ID:	Compressor Engine
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P007</b>



Company Equipment ID:	Compressor Engine 7
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P008</b>
Company Equipment ID:	Compressor Engine 8
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P009</b>
Company Equipment ID:	Compressor Engine
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P010</b>
Company Equipment ID:	Compressor Engine
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

**Group Name: Generators**

<b>Emissions Unit ID:</b>	<b>P011</b>
Company Equipment ID:	Generator 1
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P012</b>
Company Equipment ID:	Generator 2
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P013</b>
Company Equipment ID:	Generator 3
Superseded Permit Number:	
General Permit Category andType:	Not Applicable

**Group Name: Glycol dehydrators**

<b>Emissions Unit ID:</b>	<b>P024</b>
Company Equipment ID:	P024
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P025</b>
Company Equipment ID:	P025
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P026</b>
Company Equipment ID:	P026
Superseded Permit Number:	
General Permit Category andType:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P027</b>
Company Equipment ID:	P027
Superseded Permit Number:	
General Permit Category andType:	Not Applicable



**Final Permit-to-Install**  
Kilgore Compressor Station  
**Permit Number:** P0114925  
**Facility ID:** 0210002039  
**Effective Date:**9/25/2013

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



## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

## **2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## **3. General Requirements**

- a) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.



- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **5. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emission unit(s) that is (are) served by such control system(s).

## **6. Compliance Requirements**

- a) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.



- c) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- d) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

## **8. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

## **9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have



been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

## **10. Applicability**

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

## **11. Construction of New Sources(s) and Authorization to Install**

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.
- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in Ohio EPA's "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).



- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## **12. Permit-To-Operate Application**

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

## **13. Construction Compliance Certification**

The applicant shall identify the following dates in the online facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

## **14. Public Disclosure**

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.



**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly (i.e., postmarked), by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**16. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in Air Services once the transfer is legally completed. The change must be submitted through Air Services within thirty days of the ownership transfer date.

**18. Risk Management Plans**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

**19. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



**Final Permit-to-Install**  
Kilgore Compressor Station  
**Permit Number:** P0114925  
**Facility ID:** 0210002039  
**Effective Date:**9/25/2013

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



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.
2. The following emissions units contained in this permit are subject to 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants (NESHAP) From Oil and Natural Gas Production Facilities: P024-P026. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
3. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines at Area Sources. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
4. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines: P001 – P010, and P011-P013. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
5. The reciprocating compressors, storage vessels, and pneumatic controllers (as defined in 60.5365 and 60.5430) located at this facility are subject to 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
6. Air contaminant sources that qualify as de minimis under OAC rule 3745-15-05, or are exempt under OAC rule 3745-31-03(A)(1) or (4) are not subject to emission standards established within this permit. Although this permit does not apply to de minimis or exempt sources, emissions from de minimis or exempt sources must be included in the total potential to emit (PTE) calculations for this permit.



**Final Permit-to-Install**  
Kilgore Compressor Station  
**Permit Number:** P0114925  
**Facility ID:** 0210002039  
**Effective Date:**9/25/2013

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



**1. J001, Truck Loading**

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

Condensate and slop water outbound loading into tanker trucks from storage tanks, emissions controlled by Flare 1 (P014).

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 11/30/01	Volatile organic compound (VOC) emissions from the flare stack for this emissions unit shall not exceed 2.3 lbs/hr and 0.64 ton/year.  See b)(2)a through b)(2)c.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)d.
c.	ORC 3704.03(T)	Fugitive (uncaptured) VOC emissions shall not exceed 13.68 tons/year, as a rolling, 12-month summation.  See b)(2)e through b)(2)g.

(2) Additional Terms and Conditions

a. The hourly emission limitation for VOC is based on the potential to emit (PTE) for this emissions unit, therefore, no monitoring or record keeping is required to document compliance with the emission limitation.

b. The emissions from this unit shall be vented to the flare during all loading operations. The flare shall have a minimum destruction efficiency of 98%. See emissions units P014 for flare requirements.

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



changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 then these emission limits/control measures no longer apply.

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

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

- e. All condensate loading lines shall be equipped with fittings which are vapor tight.
- f. The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.
- g. The permittee shall not permit condensate to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect and record the following each month:
  - a. the amount of throughput of condensate, in gallons; and
  - b. the monthly VOC emissions as calculated in section f)(1)a, in tons.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the work practice standards in section b)(2).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:

VOC emissions from the flare stack for this emissions unit shall not exceed 2.3 lbs/hr and 0.64 ton/year.

Applicable Compliance Method:

These emission limitations reflect the unit's PTE and were derived by the following equations:

$$\begin{aligned} \text{lbs/hr} &= T \times H \times CE \times (1-DE) \\ \text{ton/year} &= A \times AT \times (1 \text{ ton}/2000 \text{ lbs}) \times CE \times (1-DE) \end{aligned}$$

where:

T = maximum hourly throughput, 21,000 gallons;  
H = hourly emission factor, 7.82 lbs/1000 gallons;  
A = annual emission factor, 5.95 lbs/1000 gallons;  
AT = annual throughput, 15,330,000 gallons;  
CE = Capture efficiency, 70%; and  
DE = Destruction efficiency, 98%.

b. Emission Limitation:

The flare shall have a minimum destruction efficiency of 98%.

Applicable Compliance Method:

Compliance shall be demonstrated by the design and operation specifications detailed in emissions units P014.

c. Emission Limitation:

Fugitive (uncaptured) VOC emissions shall not exceed 13.68 tons/year, as a rolling, 12-month summation.

Applicable Compliance Method:

VOC emissions shall be based on multiplying a loading loss factor (L) by the rolling, 12-month summation of the condensate throughput, in tons, by the capture efficiency (70%) divided by 2000. The loading loss factor was derived using Equation (1) from AP-42, Section 5.2-4 (6/08).



$$L = 12.46 \text{ SPM/T}$$

where:

L = loading loss, lb/10<sup>3</sup> gal of liquid loaded;

S = saturation factor, 0.6 for submerged fill;

P = true vapor pressure of liquid loaded, 6.7413 average psia;

M = molecular weight of vapor, 60 lb/lb-mole; and

T = temperature of bulk liquid, = 508.3 °R. (average 48.3°F).

g) Miscellaneous Requirements

- (1) None.



**2. J002, Methanol Loading**

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

Methanol to be used as a hydrate inhibitor will be loaded into on-site storage tanks from incoming tanker trucks.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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.	ORC 3704.03(T)	Methanol emissions shall not exceed 0.57 ton/year, as a rolling 12-month summation.  See b)(2)a through b)(2)c.

(2) Additional Terms and Conditions

- a. All methanol loading lines shall be equipped with fittings which are vapor tight.
- b. The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.
- c. The permittee shall not permit methanol to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall collect and record the following each month:

- a. the amount of throughput of methanol, in gallons; and
- b. the monthly methanol emissions as calculated in section f)(1)a, in tons.



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the work practice standards in section b)(2).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:

Methanol emissions shall not exceed 0.57 ton/year, as a rolling, 12-month summation.

Applicable Compliance Method:

Methanol emissions shall be based on multiplying a loading loss factor (L) by the monthly throughput, in tons, divided by 2000. The loading loss factor was derived using Equation (1) from AP-42, Section 5.2-4 (6/08).

$$L = 12.46 \text{ SPM/T}$$

where:

L = loading loss, lb/10<sup>3</sup> gal of liquid loaded;

S = saturation factor, 1.45 for splash fill;

P = true vapor pressure of liquid loaded, 1.796 psia;

M = molecular weight of vapor, 32.04 lb/lb-mole; and

T = temperature of bulk liquid, = 526.58 °R.

g) Miscellaneous Requirements

- (1) None.



**3. P014, Flare 1**

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

Standard flare with a maximum heat input rate of 21.59 mmBtu/hr to control condensate tanks (T001-T005), slop water tanks (T006-T008), and truck loading operations (J001). Additionally, assist gas is also routed to P014.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 11/30/01	Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 2.56 lbs/hr and 3.82tpy.  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	ORC 3704.03(T)	Carbon monoxide (CO) emissions shall not exceed 15.20 tons per rolling, 12-month period.  See c)(1) and c)(2).
d.	OAC rule 3745-17-07(A)	See b)(2)c.
e.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the



December 1, 2006 version of OAC rule 3745-31-05 then these emission limits/control measures no longer apply.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub> emissions from this air contaminant source since the uncontrolled potential to emit for NO<sub>x</sub> is less than 10 tons/yr.

- c. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- d. The uncontrolled mass rate of PE from the flare is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.

40 CFR 63.671 comes from Subpart HH, NESHAPs from Oil and Natural Gas Production Facilities, Definitions:

*Natural gas* means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

- (2) The flare shall be designed and operated as follows:
  - a. The flare shall be operated with a 98% destruction efficiency.
  - b. The flare shall be operated at all times when emissions may be vented to it.
  - c. There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a pressure sensor and flame detection device to monitor the need for a flame and presence of a flame, respectively, when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- (2) The permittee shall record the following information each day for the flare and process operations:



- a. the operating times for the flare and monitoring equipment.
- (3) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.
- e) Reporting Requirements
  - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the operational restrictions in section c).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 2.56 lbs/hr and 3.82 tpy.

Applicable Compliance Method:

The **hourly** emission rate specified above was established by the following equation:

$$ER_h = (EF_{\text{flare stream}} \times BV_{\text{flare stream}}) + (EF_{\text{assist}} \times FR_{\text{assist}}) + (EF_{\text{pilot}} \times FR_{\text{pilot}})$$

where:

ER<sub>h</sub> = hourly emission rate (lbs/hr);

EF<sub>flare stream</sub> = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.068 lb/mmBtu);

BV<sub>flare stream</sub> = maximum Btu value of flare stream gas (21.59 mmBtu/hr);

EF<sub>assist</sub> = emission factor from AP-42, Table 1.4-1 (7/98) for the assist gas portion (100 lbs/10<sup>6</sup>scf);

FR<sub>assist</sub> = maximum hourly flow rate of assist gas (10,830 scf/hr);

EF<sub>pilot</sub> = emission factor from AP-42, Table 1.4-1 (7/98) for the pilot gas portion (100 lbs/10<sup>6</sup>scf); and



$FR_{pilot}$  = maximum hourly flow rate of pilot gas (0.000070 mmscf/hr).

The **annual** emission rate specified above was established by the following equation:

$$ER_a = [(EF_{flare\ stream} \times BV_{flare\ stream}) + (EF_{assist} \times FR_{assist}) + (EF_{pilot} \times FR_{pilot})] / 2,000 \text{ lbs/ton}$$

where:

$ER_a$  = annual emission rate (TPY);

$EF_{flare\ stream}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.068 lb/mmBtu);

$BV_{flare\ stream}$  = maximum Btu value of flare stream gas (76,653 mmBtu/yr);

$EF_{assist}$  = emission factor from AP-42, Table 1.4-1 (7/98) for the assist gas portion (100 lbs/10<sup>6</sup>scf);

$FR_{assist}$  = maximum annual flow rate of assist gas (23.725mmscf/yr);

$EF_{pilot}$  = emission factor from AP-42, Table 1.4-1 (7/98) for the pilot gas portion (100 lbs/10<sup>6</sup>scf); and

$FR_{pilot}$  = maximum annual flow rate of pilot gas (0.6132 mmscf/yr).

If required, compliance with the hourly NO<sub>x</sub> emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

b. Emission Limitation:

CO emissions shall not exceed 15.20 tons per rolling, 12-month period.

Applicable Compliance Method:

The **annual** emission rate specified above was established by the following equation:

$$ER_a = [(EF_{flare\ stream} \times BV_{flare\ stream}) + (EF_{assist} \times FR_{assist}) + (EF_{pilot} \times FR_{pilot})] / 2,000 \text{ lbs/ton}$$

where:

$ER_a$  = annual emission rate (TPY);

$EF_{flare\ stream}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.37lb/mmBtu);

$BV_{flare\ stream}$  = maximum Btu value of flare stream gas (76,653 mmBtu/yr);



$EF_{\text{assist}}$  = emission factor from AP-42, Table 1.4-1 (7/98) for the assist gas portion (84lbs/10<sup>6</sup>scf);

$FR_{\text{assist}}$  = maximum annual flow rate of assist gas (23.725 mmscf/yr);

$EF_{\text{pilot}}$  = emission factor from AP-42, Table 1.4-1 (7/98) for the pilot gas portion (84lbs/10<sup>6</sup>scf); and

$FR_{\text{pilot}}$  = maximum annual flow rate of pilot gas (0.6132 mmscf/yr).

If required, compliance with the CO emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

c. Emission Limitation:

There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance with the visible particulate emissions limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

d. Emission Limitation:

The flare shall be operated with at least 98% destruction efficiency.

Applicable Compliance Method:

If the flare complies with the control requirements specified in c)(2) and c)(2)c, compliance with the 98% control efficiency requirement shall be assumed.

g) Miscellaneous Requirements

- (1) None.



**4. P015, Flare 2**

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

Standard flare with a maximum heat input rate of 19.17 mmBtu/hr to control dehydration unit flash tanks & condensate stabilizer stream whenever the flash gas compressors are down

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 11/30/01	Carbon monoxide (CO) emissions shall not exceed 7.10 lbs/hr and 1.72 tons/year.  See b)(2)a, c(1) and c)(2)
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 then these emission limits/control measures no longer apply.

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



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

- c. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- d. The uncontrolled mass rate of PE from the flare is less than 10 pounds/hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.

40 CFR 63.671 comes from Subpart HH, NESHAPs from Oil and Natural Gas Production Facilities, Definitions:

*Natural gas* means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

- (2) The flare shall be designed and operated as follows:
  - a. The flare shall be operated with a 98% destruction efficiency.
  - b. The flare shall be operated at all times when emissions may be vented to it.
  - c. There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a pressure sensor and flame detection device to monitor the need for a flame and presence of a flame, respectively, when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- (2) The permittee shall record the following information each day for the flare and process operations:
  - a. the operating times for the flare and monitoring equipment.
- (3) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the operational restrictions in section c).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:

CO emissions shall not exceed 7.10 lbs/hr and 1.72 tons/year

Applicable Compliance Method:

The **hourly** emission rate specified above was established by the following equation:

$$ER_h = (EF_{\text{flare stream}} \times BV_{\text{flare stream}}) + (EF_{\text{pilot}} \times FR_{\text{pilot}})$$

where:

$ER_h$  = hourly emission rate (lbs/hr);

$EF_{\text{flare stream}}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.37lb/mmBtu);

$BV_{\text{flare stream}}$  = maximum Btu value of flare stream gas (19.170mmBtu/hr);

$EF_{\text{pilot}}$  = emission factor from AP-42, Table 1.4-1 (7/98) for the pilot gas portion (84lbs/10<sup>6</sup>scf); and

$FR_{\text{pilot}}$  = maximum hourly flow rate of pilot gas (0.0000070 scf/hr).

The **annual** emission rate specified above was established by the following equation:

$$ER_a = [(EF_{\text{flare stream}} \times BV_{\text{flare stream}}) + (EF_{\text{pilot}} \times FR_{\text{pilot}})] / 2,000 \text{ lbs/ton}$$

where:

$ER_a$  = annual emission rate (TPY);



$EF_{\text{flare stream}}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.37lb/mmBtu);

$BV_{\text{flare stream}}$  = maximum Btu value of flare stream gas (9,150.94mmBtu/yr);

$EF_{\text{pilot}}$  = emission factor from AP-42, Table 1.4-1 (7/98) for the pilot gas portion (84lbs/10<sup>6</sup>scf); and

$FR_{\text{pilot}}$  = maximum annual flow rate of pilot gas (0.6132 mmscf/yr).

If required, compliance with the CO emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

b. Emission Limitation:

There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance with the visible particulate emissions limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

c. Emission Limitation:

The flare shall be operated with at least 98% destruction efficiency.

Applicable Compliance Method:

If the flare complies with the control requirements specified in c)(2) and c)(2)c, compliance with the 98% control efficiency requirement shall be assumed.

g) Miscellaneous Requirements

(1) None.



**5. P016, Flare 3**

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

Enclosed flare with a maximum heat input rate of 3.61 mmBtu/hr to control dehydration unit condenser vent streams.

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 11/30/01	Nitrogen oxides (NO <sub>x</sub> ) emissions shall not exceed 0.25 lb/hr and 1.07 tpy.  Carbon monoxide (CO) emissions shall not exceed 1.34 lbs/hr and 5.84 tpy.  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	OAC rule 3745-17-07(A)	See b)(2)c.
d.	OAC rule 3745-17-11(B)	See b)(2)d.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 then these emission limits/control measures no longer apply.



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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub> and CO emissions from this air contaminant source since the uncontrolled potential to emit for each is less than 10 tons/yr.

- c. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- d. The uncontrolled mass rate of PE from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.

40 CFR 63.671 comes from Subpart HH, NESHAPs from Oil and Natural Gas Production Facilities, Definitions:

*Natural gas* means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

- (2) The flare shall be designed and operated as follows:
  - a. The flare shall be operated with a 98% destruction efficiency.
  - b. The flare shall be operated at all times when emissions may be vented to it.
  - c. A pressure sensor shall be maintained at all times on the flare to detect the need for a flame.
  - d. The device to monitor the flare for the presence of a flame shall be in operation at all times the pressure sensor detects a need for a flame.
  - e. There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a pressure sensor and flame detection device to monitor the need for a flame and presence of a flame, respectively, when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.



- (2) The permittee shall record the following information each day for the flare and process operations:
  - a. all periods during which the pressure sensor and/or flame detection device were not functioning properly; and
  - b. the operating times for the flare and monitoring equipment.
- (3) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the operational restrictions in section c).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:

NO<sub>x</sub> emissions shall not exceed 0.25 lb/hr and 1.07 tpy

Applicable Compliance Method:

The **hourly** emission rate specified above was established by the following equation:

$$ER_h = (EF_{\text{flare stream}} \times BV_{\text{flare stream}})$$

where:

ER<sub>h</sub> = hourly emission rate (lbs/hr);

EF<sub>flare stream</sub> = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.068 lb/mmBtu);

BV<sub>flare stream</sub> = maximum Btu value of flare stream gas (3.6064mmBtu/hr);

The **annual** emission rate specified above was established by the following equation:



$$ER_a = (EF_{\text{flare stream}} \times BV_{\text{flare stream}}) / 2,000 \text{ lbs/ton}$$

where:

$ER_a$  = annual emission rate (TPY);

$EF_{\text{flare stream}}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.068 lb/mmBtu);

$BV_{\text{flare stream}}$  = maximum Btu value of flare stream gas (31,592mmBtu/yr);

If required, compliance with the hourly  $NO_x$  emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

b. Emission Limitation:

CO emissions shall not exceed 1.34 lbs/hr and 5.84 tpy

Applicable Compliance Method:

The **hourly** emission rate specified above was established by the following equation:

$$ER_h = (EF_{\text{flare stream}} \times BV_{\text{flare stream}})$$

where:

$ER_h$  = hourly emission rate (lbs/hr);

$EF_{\text{flare stream}}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.37lb/mmBtu);

$BV_{\text{flare stream}}$  = maximum Btu value of flare stream gas (3.6064 mmBtu/hr);

The **annual** emission rate specified above was established by the following equation:

$$ER_a = (EF_{\text{flare stream}} \times BV_{\text{flare stream}}) / 2,000 \text{ lbs/ton}$$

where:

$ER_a$  = annual emission rate (TPY);

$EF_{\text{flare stream}}$  = emission factor from AP-42, Table 13.5-1 (revised 1/95) for the flare stream portion (0.37lb/mmBtu);

$BV_{\text{flare stream}}$  = maximum Btu value of flare stream gas (31,592 mmBtu/yr);

If required, compliance with the CO emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.



c. Emission Limitation:

There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance with the visible particulate emissions limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

d. Emission Limitation:

The flare shall be operated with at least 98% destruction efficiency.

Applicable Compliance Method:

If the flare complies with the control requirements specified in c)(2)b through c)(2)e, compliance with the 98% control efficiency requirement shall be assumed.

g) Miscellaneous Requirements

- (1) None.



**6. P017, Compressor Blowdowns**

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

Process releases associated with periodic compressor blowdown activities

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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.	ORC 3704.03(T)	Fugitive VOC emissions shall not exceed 13.44 tons per rolling, 12-month period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) The permittee shall minimize the frequency and size of blow-down events by conducting routine operation and maintenance activities in a manner consistent with safety and good air pollution control practices.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain monthly records of the following information:

- a. number of compressor blow-down events;
- b. mole % of each VOC component in the gas stream using a representative analysis;
- c. the volume of gas emitted from all compressor blowdown events for each month, in scf; and
- d. the rolling, 12-month summation of the volume of gas emitted from all compressor blowdown events, in scf.



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit annual reports that identify:
  - a. the rolling, 12-month summation of VOC emissions, as calculated in f)(1)a; and
  - b. the annual volume of natural gas released from this emissions unit.

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:

Fugitive VOC emissions shall not exceed 13.44 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the VOC emission limitation shall be based upon the following calculation using the inputs provided in the permittee's application and the recordkeeping requirements in d)(1):

$$\text{VOC (tons/month)} = \text{sum of the following for each VOC component:} \\ = [\text{MW} \times (\text{V} \times \text{M}\%) / \text{C}] \times (1 \text{ ton}/2,000 \text{ pounds})$$

where:

MW = molecular weight constant, in lb/lb-mole;

V = volume of gas emitted/month from records specified in d)(1)c, in scf;

M% = mole % of each VOC component/month from analysis in d)(1)b, in %; and

C = molar volume conversion, 379.4 scf/lb-mole, at 60 deg F and 1 atm.

g) Miscellaneous Requirements

- (1) None.



**7. P023, PIG**

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

Pigging Emissions

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 11/30/01	Fugitive volatile organic compound (VOC) emissions shall not exceed 4.73 tons/year.  See b)(2)a and b)(2)c.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio’s State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally–approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05 then these emission limits/control measures no longer apply.

b. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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



- c. Within 60 days of startup of the emissions unit, the permittee shall develop and maintain a written operating manual for pig launching and recovery. The manual shall include, at a minimum, procedures for minimizing the duration and frequency of the pigging activities, and a training program for the operators performing the activities.

c) Operational Restrictions

- (1) The permittee shall minimize the emissions of VOC from the pigging activities to the extent practicable.
- (2) Access openings to the receivers shall be kept closed at all times, except when a pig is being placed into or removed from the receiver, or during active maintenance operations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
  - a. number of pigging events;
  - b. mole % of each VOC component in the gas stream using a representative analysis;
  - c. the volume of gas emitted from all pigging events for each month, in scf; and
  - d. the rolling, 12-month summation of the volume of gas emitted from all pigging events, in scf.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the operational restrictions in section c).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitation:  
Fugitive VOC emissions shall not exceed 4.73 tons/year.



Applicable Compliance Method:

Compliance with the VOC emission limitation shall be demonstrated based upon the following calculation using the inputs provided in the permittee's application and the record keeping requirements in d)(1):

$$\begin{aligned} \text{VOC (tons/month)} &= \text{sum of the following for each VOC component:} \\ &= [\text{molecular weight} \times ((\text{volume of gas emitted/month}) \times \\ &\quad (\text{mole \% of each VOC component/month})) / \text{molar volume} \\ &\quad \text{conversion}] \times (1 \text{ ton}/2,000 \text{ pounds}) \end{aligned}$$

where:

molecular weight = constant, in lb/lb-mole;

volume of gas emitted/month = from records specified in d)(1)c, in scf;

mole % of each VOC component/month = from analysis required in d)(1)b, in %;  
and

molar volume conversion = 379.4 scf/lb-mole, at 60 deg F and 1 atm.

The annual emissions shall be calculated by summing the VOC emissions, in tons/month, for the calendar year.

g) Miscellaneous Requirements

(1) None.



**8. P801, Equipment Leaks**

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

Various equipment components, including valves, pumps, flanges, and connectors located throughout facility

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) 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 11/30/01	Fugitive volatile organic compound (VOC) emissions shall not exceed 1.52 lbs/hr and 6.65 tons/year.  See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 then these emission limits/control measures no longer apply.

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



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 uncontrolled potential to emit for VOC is less than 10 tons/yr.

- c) Operational Restrictions
  - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
  - (1) Leak Detection and Repair Program
    - a. The permittee shall develop and implement a leak detection and repair program designed to monitor and repair leaks from ancillary equipment and compressors covered by this permit. This leak detection and repair program shall include the following elements:
      - i. An initial and then annual inspection of the ancillary and associated equipment and compressors shall be conducted to determine if a leak exists. Leaks shall be determined through the use of an analyzer meeting U.S. EPA Method 21, 40 CFR Part 60, Appendix A.
      - ii. The analyzer shall be operated and maintained following the instrument manufacturer's operation and maintenance instructions.
      - iii. A leak shall be determined if the instrument reading is equal to or greater than 10,000 ppm total VOC or the "leak detected" instrument reading required per any applicable rule.
      - iv. Documentation that includes the following:
        - (a) the date the inspection was conducted;
        - (b) the name of the employee conducting the leak check;
        - (c) the identification of any component that was determined to be leaking; and
        - (d) the date the component was repaired and determined to no longer be leaking.
    - b. The records associated with the leak detection and repair program shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- e) Reporting Requirements
  - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



f) Testing Requirements

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

a. Emission Limitations:

Fugitive VOC emissions shall not exceed 1.52 lbs/hr and 6.65 tons/year.

Applicable Compliance Method:

The hourly emission limitation is based on the potential to emit and was calculated as follows:

$$\text{Component Type (\# of components)} \times \text{emission factor} \times \% \text{ VOC}^* = \text{lb/hr}$$

In Gas/Vapor Service

- Number of connectors (300) x 0.000441 lb/hr x % VOC = lb/hr
  - Number of valves (250) x 0.00992 lb/hr x % VOC = lb/hr
  - Number of flanges (400) x 0.00086 lb/hr x % VOC = lb/hr
  - Number of compressor seals (10) x 0.0194 lb/hr x % VOC = lb/hr
  - Number of relief valves (25) x 0.0194 lb/hr x % VOC = lb/hr
  - Number of other components (5) x 0.0194 lb/hr x % VOC = lb/hr
- \*where: % VOC = 22.7755 per company's analysis

In Light Liquid Service

- Number of connectors (40) x 0.000463 lb/hr x % VOC = lb/hr
  - Number of valves (60) x 0.00551 lb/hr x % VOC = lb/hr
  - Number of pump seals (4) x 0.0287 lb/hr x % VOC = lb/hr
  - Number of other components (4) x 0.0165 lb/hr x % VOC = lb/hr
- \*where: % VOC = 100 per company's analysis

The annual emission limitation was developed by multiplying the short-term allowable VOC emission limitation (1.52 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs/ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

g) Miscellaneous Requirements

(1) None.



**9. Emissions Unit Group -Compressor Engines: P001 - P010**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P001	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P002	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P003	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P004	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P005	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P006	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P007	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P008	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P009	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606
P010	1,775 hp NG-fired 4SLB Stationary ICE equipped w/catalyst Caterpillar G3606

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Carbon monoxide (CO) emissions from the stack serving each emissions unit shall not exceed 1.18 lbs/hr and 5.18 tpy.  Nitrogen oxides (NO <sub>x</sub> ) emissions from the stack serving each emissions unit shall not exceed 1.96 lbs/hr and 8.57 tpy.  Volatile organic compound (VOC) emissions from the stack serving each emissions unit shall not exceed 0.71 lb/hr and 3.11 tpy.  The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11 and 40 CFR Part 60, Subpart JJJJ.  See b)(2)a and b)(2)b.
b.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
c.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the exhaust stack serving each emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
d.	OAC rule 3745-17-11(B)	PE shall not exceed 0.062 lb/mmBtu of actual heat input.
e.	OAC rule 3745-18-06	These emissions units are exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
f.	40 CFR Part 60, Subpart JJJJ  In accordance with 40 CFR 60.4230, these emissions units are subject to the NSPS for Stationary Spark Ignition (SI) Internal Combustion Engines (ICE).  40 CFR 60.4233(e) 40 CFR 60.4231(e)-mfg. Table 1 to Part 60, Subpart JJJJ	NO <sub>x</sub> emissions shall not exceed 2.0 g/hp-hr and 160 ppmvd at 15% oxygen (O <sub>2</sub> ).  CO emissions shall not exceed 4.0 g/hp-hr and 540 ppmvd at 15% O <sub>2</sub> .  VOC emissions shall not exceed 1.0 g/hp-hr and 86 ppmvd at 15% O <sub>2</sub> .  [40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]  See b)(2)d, c)(2), d)(2), e)(2) and f)(2).
g.	40 CFR Part 60, Subpart OOOO	In accordance with 40 CFR 63.5365(c), these emissions units are subject to the NSPS for Crude Oil and Natural Gas Production, Transmission, and Distribution.  See c)(3), d)(3) and e)(3).
h.	40 CFR Part 63, Subpart ZZZZ 40 CFR 63.6590(c)(1)	A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ.

(2) Additional Terms and Conditions

- a. The hourly emission limitations for CO, NO<sub>x</sub> and VOC are based on the potential to emit (PTE) for these emissions units, therefore, no monitoring or record keeping is required to document compliance with the emission limitations.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation



Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 these emission limitations/control measures no longer apply.

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

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub>, CO and VOC emissions from this air contaminant source since the controlled potentials to emit for NO<sub>x</sub>, CO and VOC are less than 10 tons/yr.

- d. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4236(b)	Installation deadlines
60.4243(b)	Compliance demonstration

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.

40 CFR 63.671 comes from Subpart HH, NESHAPs from Oil and Natural Gas Production Facilities, Definitions:

*Natural gas* means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4234	Duration of compliance with emission standards
60.4243(b)	Maintenance requirements
60.4243(e)	Alternative fuel
60.4243(g)	AFR controllers

- (3) The permittee shall comply with the applicable restrictions of 40 CFR Part 60 Subpart OOOO, including the following sections:

60.5385(a)-(d)	Standards for reciprocating compressor facilities
60.5410(c)(1)-(4)	Initial compliance demonstration
60.5415(c) & (h)	Continuous compliance demonstration



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 comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4245(a)(1)	Keeping records of notifications and supporting documentation
60.4243(b)(2)(ii) and 60.4245(a)(2)	Keeping records of maintenance plan and records of maintenance conducted on the engine

- (3) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5420(c)(3)	Record keeping requirements
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e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:

60.4245(c)	Must submit an initial notification
60.4245(d)	Must submit performance test copies within 60 days after the test has been completed

- (3) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart OOOO, per the following:

60.5420(a)&(b)(1)&(4)	Notifications and reports
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f) Testing Requirements

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

a. Emission Limitations:

CO emissions from the stack serving each emissions unit shall not exceed 1.18 lbs/hr and 5.18 tpy.



Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.30 g/BHP-hr (the manufacturer supplied emission factor, including the 90% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The annual emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.18 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 10.

b. Emission Limitations:

NO<sub>x</sub> emissions from the stack serving each emissions unit shall not exceed 1.96 lbs/hr and 8.57 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.50 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit).

The annual emission limitation was developed by multiplying the short-term allowable NO<sub>x</sub> emission limitation (1.96 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

c. Emission Limitations:

VOC emissions from the stack serving each emissions unit shall not exceed 0.71 lb/hr and 3.11 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.14 g/BHP-hr (the manufacturer supplied emission factor, including the 80% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying



by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The annual emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.71 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A.

d. Emission Limitation:

Visible PE from the exhaust stack serving each emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE shall not exceed 0.062 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 2.0 g/HP-hr and 160 ppmvd at 15% O<sub>2</sub>.

CO emissions shall not exceed 4.0 g/HP-hr and 540 ppmvd at 15% O<sub>2</sub>.

VOC emissions shall not exceed 1.0 g/HP-hr and 86 ppmvd at 15% O<sub>2</sub>.



Applicable Compliance Method:

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

- (2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ, Table 2 and the following requirements:
  - a. Conduct performance testing in the following manner:
    - i. If the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO<sub>x</sub> and CO, within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
  - b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
  - c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
  - d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast 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, Northeast District Office's refusal to accept the results of the emission test(s).
  - e. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast 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, Northeast District Office.



**Final Permit-to-Install**  
Kilgore Compressor Station  
**Permit Number:** P0114925  
**Facility ID:** 0210002039  
**Effective Date:**9/25/2013

g) Miscellaneous Requirements

(1) None.



**10. Emissions Unit Group -Generators: P011, P012, P013**

EU ID	Operations, Property and/or Equipment Description
P011	605 hp NG-fired generator equipped w/3-way catalyst Baldor IGLC420-2N
P012	605 hp NG-fired generator equipped w/3-way catalyst Baldor IGLC420-2N
P013	605 hp NG-fired generator equipped w/3-way catalyst Baldor IGLC420-2N

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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.	ORC 3704.03(T)	The requirements of this rule for carbon monoxide (CO) are equivalent to the requirements established pursuant to 40 CFR Part 60, Subpart JJJJ
b.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Nitrogen oxides (NO<sub>x</sub>) emissions from the stack serving each emissions unit shall not exceed 1.33 lbs/hr and 5.84 tpy.</p> <p>Volatile organic compound (VOC) emissions from the stack serving each emissions unit shall not exceed 0.93 lb/hr and 4.09 tpy.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11 and 40 CFR Part 60, Subpart JJJJ.</p> <p>See b)(2)a and b)(2)b.</p>
c.	OAC rule 3745-31-05(A)(3), as effective 12/01/06	See b)(2)c.
d.	OAC rule 3745-17-07(A)	Visible particulate emissions (PE) from the exhaust stack serving each emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.
e.	OAC rule 3745-17-11(B)	PE shall not exceed 0.062 lb/mmBtu of actual heat input.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-18-06	These emissions units are exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
g.	40 CFR Part 60, Subpart JJJJ	<p>NO<sub>x</sub> emissions shall not exceed 2.0 g/hp-hr and 160 ppmvd at 15% oxygen (O<sub>2</sub>).</p> <p>CO emissions shall not exceed 4.0 g/hp-hr and 540 ppmvd at 15% O<sub>2</sub>.</p> <p>VOC emissions shall not exceed 1.0 g/hp-hr and 86 ppmvd at 15% O<sub>2</sub>.</p> <p>[40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]</p> <p>See b)(2)d, c)(2), d)(2), e)(2) and f)(2).</p>
h.	40 CFR Part 63, Subpart ZZZZ 40 CFR 63.6590(c)(1)	A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ.

(2) Additional Terms and Conditions

- a. The hourly emission limitations for NO<sub>x</sub> and VOC are based on the uncontrolled potential to emit (PTE) for these emissions units, therefore, no monitoring or record keeping is required to document compliance with the emission limitations.
- b. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 these emission limitations/control measures no longer apply.
- c. This rule paragraph applies once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO<sub>x</sub> and VOC emissions from this air contaminant



source since the controlled potentials to emit for NO<sub>x</sub> and VOC are less than 10 tons/yr.

- d. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4236(b)	Installation deadlines
60.4243(b)	Compliance demonstration

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.

40 CFR 63.671 comes from Subpart HH, NESHAPs from Oil and Natural Gas Production Facilities, Definitions:

*Natural gas* means a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface. The principal hydrocarbon constituent is methane.

- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4234	Duration of compliance with emission standards
60.4243(b)	Maintenance requirements
60.4243(e)	Alternative fuel
60.4243(g)	AFR controllers

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 comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4245(a)(1)	Keeping records of notifications and supporting documentation
60.4243(b)(2)(ii) and 60.4245(a)(2)	Keeping records of maintenance plan and records of maintenance conducted on the engine

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.



- (2) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:

60.4245(c)	Must submit an initial notification
60.4245(d)	Must submit performance test copies within 60 days after the test has been completed

f) Testing Requirements

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

a. Emission Limitations:

NO<sub>x</sub> emissions from the stack serving each emissions unit shall not exceed 1.33 lbs/hr and 5.84 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 1.0 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 605 brake-horsepower (the maximum power output rating of this unit).

The annual emission limitation was developed by multiplying the short-term allowable NO<sub>x</sub> emission limitation (1.33 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

b. Emission Limitations:

VOC emissions from the stack serving each emissions unit shall not exceed 0.93 lb/hr and 4.09 tpy.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.70 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 605 brake-horsepower (the maximum power output rating of this unit).

The annual emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.93 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if



compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A.

c. Emission Limitation:

Visible PE from the exhaust stack serving each emissions unit shall not exceed 20% opacity, as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

d. Emission Limitation:

PE shall not exceed 0.062 lb/mmBtu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

e. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 2.0 g/HP-hr and 160 ppmvd at 15% O<sub>2</sub>.

CO emissions shall not exceed 4.0 g/HP-hr and 540 ppmvd at 15% O<sub>2</sub>.

VOC emissions shall not exceed 1.0 g/HP-hr and 86 ppmvd at 15% O<sub>2</sub>.

Applicable Compliance Method:

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

- (2) The permittee shall conduct, or have conducted, emission testing for each emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ, Table 2 and the following requirements:



- a. Conduct performance testing in the following manner:
  - i. If the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO<sub>x</sub> and CO, within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of the emissions unit.
  - b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
  - c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
  - d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast 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, Northeast District Office's refusal to accept the results of the emission test(s).
  - e. Personnel from the Ohio EPA, Northeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast 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, Northeast District Office.
- g) Miscellaneous Requirements
  - (1) None.



**11. Emissions Unit Group – Dehydration units: P024, P025, P026, & P027**

EU ID	Operations, Property and/or Equipment Description
P024	110 MMSCFD Glycol Dehydration Unit #1, vented to Flares 2 (P015) and 3 (P016)
P025	110 MMSCFD Glycol Dehydration Unit #2, vented to Flares 2 (P015) and 3 (P016)
P026	110 MMSCFD Glycol Dehydration Unit #3, vented to Flares 2 (P015) and 3 (P016)
P027	110 MMSCFD Glycol Dehydration Unit #4, vented to Flares 2 (P015) and 3 (P016)

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) d)(4)

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 11/30/01	Volatile organic compound (VOC) emissions from the flare stack(s) for each emissions unit shall not exceed 0.76 lb/hr and 3.32 tons/year.  See b)(2)a, b)(2)c through b)(2)e, c)(1) and c)(2).
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	40 CFR Part 63, Subpart HH, NESHAP from Oil and Natural Gas Production Facilities, 40 CFR 63.764(e)(1)(ii)	Exempt. Less than 0.90 Megagram benzene/year.  See d)(2) and d)(3).
d.	ORC 3704.03(F)(4)(d)	See d)(4).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC paragraph 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP).



Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05 then these emission limits/control measures no longer apply.

- b. These rule paragraphs apply once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the State Implementation Plan.

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

- c. Dehydrator flash tank off-gases that are not used as fuel in the reboiler shall be recompressed and routed to the inlet separator. During flash gas compressor downtime, flash tank off-gases will be routed to Flare-2 (P015).
- d. Maintenance of the temperature of the exhaust gases from the condenser and maintenance of the flare used to control VOC and HAPs will assure compliance with the annual limit. Additional monthly record keeping is not required since the annual limits are based on each emissions unit's potential to emit (at a throughput of 60mmscf of natural gas/day and 98% destruction efficiency). See emissions units P015 and P016 for flare requirements.
- e. The emissions from the dehydration unit's condenser shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions units P015 and P016 for flare requirements.

c) Operational Restrictions

- (1) All emissions from the dehydrator still vent shall be vented to a condenser that shall meet the monitoring and record keeping requirements of this permit, when the emissions unit is in operation, including the following:
  - a. The condenser shall be operated at all times when gases are vented to it.
  - b. The condenser must be equipped with a temperature monitoring device that monitors and records the dehydration still vent temperature.
  - c. The condenser, temperature monitoring device and recorder shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, instructions and operating manuals.
- (2) The condenser temperature shall be maintained below 120° Fahrenheit during operation of this emissions unit.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records for the condenser:
  - a. monitor and record the temperature of the exit of the condenser on a daily basis (Monday through Friday, excluding major holidays); and
  - b. record all periods of time when the condenser is not operating correctly to control the emissions from the dehydration still vent.
- (2) The permittee shall maintain records of the annual facility natural gas or hydrocarbon liquid throughput for each year, in accordance with 40 CFR 63.760(a)(1)(ii).
- (3) The permittee shall maintain the following records for the actual average emissions of benzene from the glycol dehydration unit process vent in accordance with 63.772(b)(2), determined either uncontrolled or with federally enforceable controls in place:
  - a. The permittee shall determine actual average benzene emissions using the model GRI-GLY Calc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLY Calc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit 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); or
  - b. The permittee shall determine an average mass rate of benzene emissions in kilograms/hour through direct measurement using the methods in 63.772(a)(1)(i) or (ii), or an alternative method according to 63.7(f). Annual emissions in kilograms/year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams/year.
- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton/year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified permit-to-install (PTI) 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/year may require the permittee to apply for and obtain a new PTI.

\*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.



e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify any deviation from the operational restrictions in section c).

These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of 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. Emission Limitations:

VOC emissions from the flare stack for each emissions unit shall not exceed 0.76 lb/hr and 3.32 tons/year.

Applicable Compliance Method:

The permittee may determine the VOC emissions (excludes methane and ethane) using the GRI-GLYCalc™ model, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. 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);

Potential VOC and/or benzene emissions estimates shall be based on the maximum glycol circulation rate(s), in gallons/minute (gpm); the worst case pollutant concentrations from representative extended gas analyses of the inlet wet gas; and the maximum natural gas flow rate, as determined by 40 CFR 63.772(b)(1)(i); or for a new unit, potential emissions shall be estimated in accordance with 40 CFR 63.760(a) and increased by a factor of 1.2.

See emissions units P015 and P016 for testing requirements.

The annual emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.76 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.



b. Emission Limitation:

The flare shall have a minimum destruction efficiency of 98%.

Applicable Compliance Method:

Compliance shall be demonstrated by the design and operation specifications detailed in emissions units P015 and P016.

g) Miscellaneous Requirements

- (1) The permittee shall meet the applicable requirements of the most current version of 40 CFR Part 63, Subpart HH following any amendments to these rules, which may supersede any requirements identified in this permit.



**12. Emissions Unit Group -400 bbl Condensate/Produced Water Tanks: T001-T008**

EU ID	Operations, Property and/or Equipment Description
T001	400-bbl Condensate Storage Tank
T002	400-bbl Condensate Storage Tank
T003	400-bbl Condensate Storage Tank
T004	400-bbl Condensate Storage Tank
T005	400-bbl Condensate Storage Tank
T006	400-bbl Slop Water Storage Tank
T007	400-bbl Slop Water Storage Tank
T008	400-bbl Slop Water Storage Tank

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

(1) 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 11/30/01	Volatile organic compound (VOC) emissions from the flare stack shall not exceed 4.02 tons/year for each condensate tank and 0.22 ton/year for each slop water tank.  The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart OOOO.  Use of submerged or bottom fill on tank.  See b)(2)a and c)(1).
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b.
c.	40 CFR Part 60, Subpart Kb	Exempt. See b)(2)c.
d.	OAC rule 3745-21-09(L)(2)	Exempt. See b)(2)d.
e.	40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution	Group 2 storage vessels with the potential to emit VOC emissions greater than 6 tons/year.  See c)(1) and e)(3).



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(60.5360-60.5430)	

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons/year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05 then these emission limits/control measures no longer apply.

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

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 controlled potential to emit for VOC is less than 10 tons/yr.

- c. Storage vessels with a capacity of less than 75 m<sup>3</sup> (19,812.9 gallons) are not subject to the requirements of 40 CFR Part 60, Subpart Kb.
- d. Fixed roof tanks with a capacity of less than 40,000 gallons are exempted from the requirements of OAC rule 3745-21-09(L)(1).
- e. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5395(a),(c),(d),(e),(f)	Group 2 storage vessel requirements
60.5410(h)	Initial compliance demonstration
60.5411(b),(c) and 60.5412(d)	Additional requirements for initial compliance
60.5415(e)	Continuous compliance requirements

c) Operational Restrictions

- (1) All of the emissions from the storage tank shall be captured by a vapor recovery unit (VRU) or flare. The flare shall be designed and operated as required in emissions unit P014.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the annual throughput of each tank in gallons/year. The permittee shall keep records of U.S. EPA TANKS software program and/or other process simulation program calculations used to demonstrate annual storage tank and process vent emissions. These records 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) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5416(c), 60.5417(h)	Monitoring requirements
60.5420(c)	Record keeping requirements

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit deviation (excursion) reports that identify any deviation from the operational restrictions in section c).  
  
These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (3) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5420(a), (b)	Notifications and reports
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f) Testing Requirements

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

a. Emission Limitations:

VOC emissions from the flare stack shall not exceed 4.02 tons/year for each condensate tank and 0.22 ton/year for each slop water tank.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; either the TANKS software program or other process simulation programs such as, but not limited to, HYSYS or ProMax, to calculate



flash losses; the Gas Research Institute's simulation program GLY Calc version 4 or equivalent to calculate flash tank off-gas emissions; and an assumed destruction efficiency of 98% for the flare.

- g) Miscellaneous Requirements
  - (1) None.