



9/2/2014

Certified Mail

Mr. Sean Wilson
Blue Racer Midstream LLC - Berne Plant
5949 Sherry Lane, Suite 1300
Dallas, TX 75225

No	TOXIC REVIEW
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MODELING SUBMITTED
No	SYNTHETIC MINOR TO AVOID TITLE V
No	FEDERALLY ENFORCABLE PTIO (FEPTIO)
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE
Facility ID: 0656065005
Permit Number: P0116371
Permit Type: Initial Installation
County: Monroe

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install and Operate (PTIO) which will allow you to install, modify, and/or operate the described emissions unit(s) in the manner indicated in the permit. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

How to appeal this permit

The issuance of this PTIO is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

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

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)385-8501 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-SEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Blue Racer Midstream LLC - Berne Plant**

Facility ID:	0656065005
Permit Number:	P0116371
Permit Type:	Initial Installation
Issued:	9/2/2014
Effective:	9/2/2014
Expiration:	9/2/2024



Division of Air Pollution Control
Permit-to-Install and Operate
for
Blue Racer Midstream LLC - Berne Plant

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Final Permit-to-Install and Operate
Blue Racer Midstream LLC - Berne Plant
Permit Number: P0116371
Facility ID: 0656065005
Effective Date: 9/2/2014

Authorization

Facility ID: 0656065005
Application Number(s): A0050082
Permit Number: P0116371
Permit Description: Initial PTIO for an oil and gas processing plant.
Permit Type: Initial Installation
Permit Fee: \$4,450.00
Issue Date: 9/2/2014
Effective Date: 9/2/2014
Expiration Date: 9/2/2024
Permit Evaluation Report (PER) Annual Date: Jan 1 - Dec 31, Due Feb 15

This document constitutes issuance to:

Blue Racer Midstream LLC - Berne Plant
Swazey Rd
Lewisville, OH 43788

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

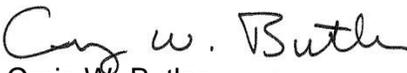
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted this Permit-to-Install and Operate for the air contaminant source(s) (emissions unit(s)) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the described emissions unit(s) will operate in compliance with applicable State and federal laws and regulations.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0116371
Permit Description: Initial PTIO for an oil and gas processing plant.

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

Emissions Unit ID:	B005
Company Equipment ID:	HTR5
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B006
Company Equipment ID:	HTR6
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	F001
Company Equipment ID:	R1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J001
Company Equipment ID:	LOAD
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J002
Company Equipment ID:	LOAD2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	DEHY1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	F-1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	BD
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	PIG
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	SV
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P801



Company Equipment ID: FUG1
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Emissions Unit ID: T001
 Company Equipment ID: T1
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Emissions Unit ID: T003
 Company Equipment ID: PTANKS
 Superseded Permit Number:
 General Permit Category and Type: Not Applicable

Group Name: Compressor Engines

Emissions Unit ID:	P001
Company Equipment ID:	COMP1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	COMP2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: HMO Heaters

Emissions Unit ID:	B003
Company Equipment ID:	HTR2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B004
Company Equipment ID:	HTR4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Blue Racer Midstream LLC - Berne Plant
Permit Number: P0116371
Facility ID: 0656065005
Effective Date: 9/2/2014

A. Standard Terms and Conditions



1. What does this permit-to-install and operate ("PTIO") allow me to do?

This permit allows you to install and operate the emissions unit(s) identified in this PTIO. You must install and operate the unit(s) in accordance with the application you submitted and all the terms and conditions contained in this PTIO, including emission limits and those terms that ensure compliance with the emission limits (for example, operating, recordkeeping and monitoring requirements).

2. Who is responsible for complying with this permit?

The person identified on the "Authorization" page, above, is responsible for complying with this permit until the permit is revoked, terminated, or transferred. "Person" means a person, firm, corporation, association, or partnership. The words "you," "your," or "permittee" refer to the "person" identified on the "Authorization" page above.

The permit applies only to the emissions unit(s) identified in the permit. If you install or modify any other equipment that requires an air permit, you must apply for an additional PTIO(s) for these sources.

3. What records must I keep under this permit?

You must keep all records required by this permit, including monitoring data, test results, strip-chart recordings, calibration data, maintenance records, and any other record required by this permit for five years from the date the record was created. You can keep these records electronically, provided they can be made available to Ohio EPA during an inspection at the facility. Failure to make requested records available to Ohio EPA upon request is a violation of this permit requirement.

4. What are my permit fees and when do I pay them?

There are two fees associated with permitted air contaminant sources in Ohio:

- PTIO fee. This one-time fee is based on a fee schedule in accordance with Ohio Revised Code (ORC) section 3745.11, or based on a time and materials charge for permit application review and permit processing if required by the Director.

You will be sent an invoice for this fee after you receive this PTIO and payment is due within 30 days of the invoice date. You are required to pay the fee for this PTIO even if you do not install or modify your operations as authorized by this permit.

- Annual emissions fee. Ohio EPA will assess a separate fee based on the total annual emissions from your facility. You self-report your emissions in accordance with Ohio Administrative Code (OAC) Chapter 3745-78. This fee assessed is based on a fee schedule in ORC section 3745.11 and funds Ohio EPA's permit compliance oversight activities. For facilities that are permitted as synthetic minor sources, the fee schedule is adjusted annually for inflation. Ohio EPA will notify you when it is time to report your emissions and to pay your annual emission fees.

5. When does my PTIO expire, and when do I need to submit my renewal application?

This permit expires on the date identified at the beginning of this permit document (see "Authorization" page above) and you must submit a renewal application to renew the permit. Ohio EPA will send a renewal notice to you approximately six months prior to the expiration date of this permit. However, it is



very important that you submit a complete renewal permit application (postmarked prior to expiration of this permit) even if you do not receive the renewal notice.

If a complete renewal application is submitted before the expiration date, Ohio EPA considers this a timely application for purposes of ORC section 119.06, and you are authorized to continue operating the emissions unit(s) covered by this permit beyond the expiration date of this permit until final action is taken by Ohio EPA on the renewal application.

6. What happens to this permit if my project is delayed or I do not install or modify my source?

This PTIO expires 18 months after the issue date identified on the "Authorization" page above unless otherwise specified if you have not (1) started constructing the new or modified emission sources identified in this permit, or (2) entered into a binding contract to undertake such construction. This deadline can be extended by up to 12 months, provided you apply to Ohio EPA for this extension within a reasonable time before the 18-month period has ended and you can show good cause for any such extension.

7. What reports must I submit under this permit?

An annual permit evaluation report (PER) is required in addition to any malfunction reporting required by OAC rule 3745-15-06 or other specific rule-based reporting requirement identified in this permit. Your PER due date is identified in the Authorization section of this permit.

8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?

If you are required to obtain a Title V permit under OAC Chapter 3745-77 in the future, the permit-to-operate portion of this permit will be superseded by the issued Title V permit. From the effective date of the Title V permit forward, this PTIO will effectively become a PTI (permit-to-install) in accordance with OAC rule 3745-31-02(B). The following terms and conditions of this permit will no longer be applicable after issuance of the Title V permit: Section B, Term 1.b) and Section C, for each emissions unit, Term a)(2).

The PER requirements in this permit remain effective until the date the Title V permit is issued and is effective, and cease to apply after the effective date of the Title V permit. The final PER obligation will cover operations up to the effective date of the Title V permit and must be submitted on or before the submission deadline identified in this permit on the last day prior to the effective date of the Title V permit.

9. What are my obligations when I perform scheduled maintenance on air pollution control equipment?

You must perform scheduled maintenance of air pollution control equipment in accordance with OAC rule 3745-15-06(A). If scheduled maintenance requires shutting down or bypassing any air pollution control equipment, you must also shut down the emissions unit(s) served by the air pollution control equipment during maintenance, unless the conditions of OAC rule 3745-15-06(A)(3) are met. Any emissions that exceed permitted amount(s) under this permit (unless specifically exempted by rule) must be reported as deviations in the annual permit evaluation report (PER), including nonexempt excess emissions that occur during approved scheduled maintenance.



10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?

If you have a reportable malfunction of any emissions unit(s) or any associated air pollution control system, you must report this to the [DO/LAA] in accordance with OAC rule 3745-15-06(B). Malfunctions that must be reported are those that result in emissions that exceed permitted emission levels. It is your responsibility to evaluate control equipment breakdowns and operational upsets to determine if a reportable malfunction has occurred.

If you have a malfunction, but determine that it is not a reportable malfunction under OAC rule 3745-15-06(B), it is recommended that you maintain records associated with control equipment breakdown or process upsets. Although it is not a requirement of this permit, Ohio EPA recommends that you maintain records for non-reportable malfunctions.

11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?

Yes. Under Ohio law, the Director or his authorized representative may inspect the facility, conduct tests, examine records or reports to determine compliance with air pollution laws and regulations and the terms and conditions of this permit. You must provide, within a reasonable time, any information Ohio EPA requests either verbally or in writing.

12. What happens if one or more emissions units operated under this permit is/are shut down permanently?

Ohio EPA can terminate the permit terms associated with any permanently shut down emissions unit. "Shut down" means the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31.

You should notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification that identifies the date on which the emissions unit was permanently shut down. The certification must be submitted by an authorized official from the facility. You cannot continue to operate an emission unit once the certification has been submitted to Ohio EPA by the authorized official.

You must comply with all recordkeeping and reporting for any permanently shut down emissions unit in accordance with the provisions of the permit, regulations or laws that were enforceable during the period of operation, such as the requirement to submit a PER, air fee emission report, or malfunction report. You must also keep all records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, for at least five years from the date the record was generated.

Again, you cannot resume operation of any emissions unit certified by the authorized official as being permanently shut down without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

13. Can I transfer this permit to a new owner or operator?

You can transfer this permit to a new owner or operator. If you transfer the permit, you must follow the procedures in OAC Chapter 3745-31, including notifying Ohio EPA or the local air agency of the



change in ownership or operator. Any transferee of this permit must assume the responsibilities of the transferor permit holder.

14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?

This permit and OAC rule 3745-15-07 prohibit operation of the air contaminant source(s) regulated under this permit in a manner that causes a nuisance. Ohio EPA can require additional controls or modification of the requirements of this permit through enforcement orders or judicial enforcement action if, upon investigation, Ohio EPA determines existing operations are causing a nuisance.

15. What happens if a portion of this permit is determined to be invalid?

If a portion of this permit is determined to be invalid, the remainder of the terms and conditions remain valid and enforceable. The exception is where the enforceability of terms and conditions are dependent on the term or condition that was declared invalid.



Final Permit-to-Install and Operate
Blue Racer Midstream LLC - Berne Plant
Permit Number: P0116371
Facility ID: 0656065005
Effective Date: 9/2/2014

B. Facility-Wide Terms and Conditions



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) 8.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
2. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines at Area Sources. Although Ohio EPA has determined that this GACT applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, US EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by US EPA. For more information on the area source rules, please refer to the following US EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
3. Specific emissions units contained in this permit are subject to 40 CFR Part 63, Subpart HH. The dehydration units at this facility are exempt per 63.764(e)(ii) from the requirements of 63.764(d)(2) due to the actual average emission of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 Mg/yr, as determined by the procedures specified in 63.772(b)(2) of 40 CFR 63, Subpart HH. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the e-CFR website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office of local air agency.
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 – P002. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Southeast District Office.
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 Southeast District Office.
6. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-institutional Steam Generating Units: B003, - B006. The complete NSPS requirements, including the NSPS General Provisions, may be accessed via the internet from the e-CFR website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.



7. The Compressor Station must comply with the Used Oil Management Standards of OAC Chapter 3745-279.
8. Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary for this project because the combined emissions units' (taking into account Ohio EPA's Engineering Guide 69) maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745 114 01, will be less than 1.0 ton per year. OAC Chapter 3745 31 requires a permittee to apply for and obtain a new or modified 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 per year may require the permittee to apply for and obtain a new PTIO.
9. 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 and Operate
Blue Racer Midstream LLC - Berne Plant
Permit Number: P0116371
Facility ID: 0656065005
Effective Date: 9/2/2014

C. Emissions Unit Terms and Conditions



1. B005, Stabilizer Heater #1

Operations, Property and/or Equipment Description:

Stabilizer Heater #1 fired by natural gas; with a maximum input capacity of 10.71 mmBtu/hr.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.		Carbon monoxide (CO) emissions shall not exceed 0.29 ton per month averaged over a 12-month, rolling period. Nitrogen oxide (NO _x) emissions shall not exceed 0.35 ton per month averaged over a 12-month, rolling period. Particulate emissions (PE) shall not exceed 0.03 ton per month averaged over a 12-month, rolling period. Sulfur dioxide (SO ₂) emissions shall not exceed 0.003 ton per month averaged over a 12-month, rolling period. Volatile organic compound (VOC) emissions shall not exceed 0.02 ton per month averaged over a 12-month, rolling



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20 percent opacity as a six minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 lb/MMBtu of actual heat input.
e.	40 CFR Part 60, Subpart Dc [40 CFR 60.40c – 48c] In accordance with 40 CFR 60.40c(A), this facility is a steam generating unit for which construction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).	See b)(2)c., d)(2), e)(4)

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, these emission limits/control measures no longer apply.
- b. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions, NO_x emissions, PE, SO₂ emissions and VOC emissions from this air contaminant source since the uncontrolled potential to emit for CO, NO_x, PE, SO₂ and VOC emissions are less than 10 tons/yr.



c. As submitted in application A0050082, received February 26, 2014, the permittee has committed to complying with 40 CFR Part 60, Subpart Dc by only burning natural gas in this emissions unit in accordance with 40 CFR 60.48c(g)(2).

c) Operational Restrictions

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

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 reporting requirements under 40 CFR Part 60, Subpart Dc, including the following:

60.48c(g)(1)	As an alternative to 60.48c(g)(1), combust only natural gas and record the amount of fuel combusted during each month.
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e) Reporting Requirements

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

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 day after the deviation occurs.

(4) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart Dc, including the following:

60.48c(a)(1)-(4)	Initial notification
------------------	----------------------

f) Testing Requirements

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



a. Emissions Limitation:

CO emissions shall not exceed 0.29 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (10.71 MMBtu/hr) multiplied by an emissions factor of 84 (AP 42 Table 1.4-1 (7/98)) lb/mmescf divided by 1,120 Btu/scf, multiplied by the actual operating hours per year of the emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

b. Emissions Limitation:

NO_x emissions shall not exceed 0.35 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (10.71 MMBtu/hr) multiplied by an emissions factor of 100 lb/mmescf 9 AP 42 Table 1.4-1 (7/98)) divided by 1,120 Btu/scf, multiplied the actual operating hours per year of the emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

c. Emissions Limitation:

PE shall not exceed 0.03 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (10.71 MMBtu/hr) multiplied by an emissions factor of 7.6 lb/mmescf (AP 42 Table 1.4-2 (7/98)) divided by 1,120 Btu/scf, multiplied by the actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

d. Emissions Limitation:

SO₂ emissions shall not exceed 0.003 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (10.71 MMBtu/hr) multiplied by the sulfur content of 4.0 scf S/MMscf of gas, divided by 1,120 Btu/scf, divided by 379 scf/1 lb-mol multiplied by 32.06 lb S/lb-mol multiplied by 64.06 lb SO₂ / 32.06lb S, multiplied by the



actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

e. Emissions Limitation:

VOC emissions shall not exceed 0.02 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (10.71 MMBtu/hr) multiplied by an emissions factor of 5.5 lb/mmscf (AP 42 Table 1.4-2 (7/98)) divided by 1,120 Btu/scf, multiplied by the actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

f. Emissions Limitation:

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

Applicable Compliance Method:

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

g. Emissions Limitation:

PE shall not exceed 0.020 lb/MMBtu of actual heat input.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745 17 03(B)(9). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g) Miscellaneous Requirements

- (1) None.



2. B006, Stabilizer Heater #2

Operations, Property and/or Equipment Description:

Stabilizer Heater #2 fired by natural gas; with a maximum input capacity of 21.43 mmBtu/hr.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	Carbon monoxide (CO) emissions shall not exceed 0.59 ton per month averaged over a 12-month, rolling period. Nitrogen oxide (NO _x) emissions shall not exceed 0.70 ton per month averaged over a 12-month, rolling period. Particulate emissions (PE) shall not exceed 0.05 ton per month averaged over a 12-month, rolling period. Sulfur dioxide (SO ₂) emissions shall not exceed 0.01 ton per month averaged over a 12-month, rolling period. Volatile organic compound (VOC) emissions shall not exceed 0.04 ton per month averaged over a 12-month, rolling



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20 percent opacity as a six minute average, except as provided by rule.
d.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 lb/MMBtu of actual heat input.
e.	40 CFR Part 60, Subpart Dc [40 CFR 60.40c – 48c] In accordance with 40 CFR 60.40c(A), this facility is a steam generating unit for which construction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).	See b)(2)c., d)(2), e)(4)

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, these emission limits/control measures no longer apply.
- b. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions, NO_x emissions, PE, SO₂ emissions and VOC emissions from this air contaminant source since the uncontrolled potential to emit for CO, NO_x, PE, SO₂ and VOC emissions are less than 10 tons/yr.



c. As submitted in application A0050082, received February 26, 2014, the permittee has committed to complying with 40 CFR Part 60, Subpart Dc by only burning natural gas in this emissions unit in accordance with 40 CFR 60.48c(g)(2).

c) Operational Restrictions

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

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 reporting requirements under 40 CFR Part 60, Subpart Dc, including the following:

60.48c(g)(1)	As an alternative to 60.48c(g)(1), combust only natural gas and record the amount of fuel combusted during each month.
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e) Reporting Requirements

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

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 day after the deviation occurs.

(4) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart Dc, including the following:

60.48c(a)(1)-(4)	Initial notification
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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. Emissions Limitation:

CO emissions shall not exceed 0.59 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (21.43 MMBtu/hr) multiplied by an emissions factor of 84 lb/mmescf divided by 1,120 Btu/scf, multiplied by the actual operating hours per year of the emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

b. Emissions Limitation:

NO_x emissions shall not exceed 0.70 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (21.43 MMBtu/hr) multiplied by an emissions factor of 100 lb/mmescf divided by 1,120 Btu/scf, multiplied the actual operating hours per year of the emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

c. Emissions Limitation:

PE shall not exceed 0.05 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (21.43 MMBtu/hr) multiplied by an emissions factor of 7.6 lb/mmescf divided by 1,120 Btu/scf, multiplied by the actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

d. Emissions Limitation:

SO₂ emissions shall not exceed 0.01 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (21.43 MMBtu/hr) multiplied by the sulfur content of 4.0 scf S/MMscf of gas, divided by 1,120 Btu/scf, divided by 379 scf/1 lb-mol multiplied by 32.06 lb S/lb-mol multiplied by 64.06 lb SO₂ / 32.06lb S, multiplied by the



actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

e. Emissions Limitation:

VOC emissions shall not exceed 0.04 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (21.43 MMBtu/hr) multiplied by an emissions factor of 5.5 lb/mmscf divided by 1,120 Btu/scf, multiplied by the actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

f. Emissions Limitation:

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

Applicable Compliance Method:

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

g. Emissions Limitation:

PE shall not exceed 0.020 lb/MMBtu of actual heat input.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745 17 03(B)(9). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g) Miscellaneous Requirements

- (1) None.



3. F001, Unpaved Roadways and Parking

Operations, Property and/or Equipment Description:

Unpaved roadways and parking areas with a maximum vehicle miles traveled (VMT) of 353 miles/year with a maximum of 10% silt content, an average vehicle weight of 40 tons, and an average speed of 15 mph.

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	Develop and implement a site-specific work practice plan designed as described in d)(1) below to minimize or eliminate fugitive dust emissions. See b)(2)a. and b)(2)b.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)c.
c.	OAC rule 3745-17-07(B)(5)	No visible particulate emissions (PE) from unpaved roadways and parking areas except for a period of time not to exceed 13 minutes during any 60-minute observation period.
d.	OAC rule 3745-17-08(B)	See b)(2)d through b)(2)g.



- (2) Additional Terms and Conditions
- a. The permittee shall begin using the Work Practice Plan within 30 days from the date Ohio EPA approved the initial plan. As needs warrant, the permittee can modify the Work Practice Plan. The permittee cannot begin using any modified Work Practice Plan until such time as the Southeast District Office approves the revised plan.
 - 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 ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, these emission limits/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 BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the particulate emissions from this air contaminant source since the uncontrolled potential to emit for particulate emissions are less than 10 tons/yr.
 - d. The permittee shall employ reasonably available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's application, the permittee has committed to treat the unpaved roadways and parking areas by application of chemical stabilization/dust suppressants and/or watering at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
 - e. The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
 - f. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
 - g. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-17-08.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall develop and implement a site-specific work practice plan designed to minimize or eliminate fugitive dust from the permittees paved and unpaved roadways and parking areas. This work practice plan shall include, at a minimum, the following elements:
 - a. An identification of each segment of unpaved roadway or parking area for which the plan applies.
 - b. A determination of the frequency that each roadway or parking area will be inspected to determine if additional control measures are needed.
 - c. The identification of the record keeping form/record that will be used to track the inspection and treatment of the roadways. This form/record should include, at a minimum, the following elements:
 - i. Roadway or parking area segment inspected;
 - ii. Date inspected;
 - iii. Name of employee doing the inspection;
 - iv. Result of the inspection (needs treated or does not need treated);
 - v. A description of why no treatment was needed;
 - vi. Date treated;
 - vii. Name of employee treating the segment; and
 - viii. Method used to treat the segment.
 - d. A description of how and where the records shall be maintained.
- (2) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments and parking areas at frequencies described in the Work Practice Plan. The purpose of the inspections is to determine the need for implementing control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.



- (3) The permittee shall maintain records of the following information:
 - a. The records required to be collected under the Work Practice Plan, and
 - b. the date and reason any element of the Work Practice Plan was not implemented.
- e) Reporting Requirements
 - (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.
 - (3) Within 30 days from the final issuance of this permit, the permittee shall submit their proposed Work Practice Plan to the Southeast District Office.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emissions Limitation:

No visible PE from unpaved roadways and parking areas except for a period of time not to exceed 13 minutes during any 60-minute observation period.

Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 22.
- g) Miscellaneous Requirements
 - (1) None.



4. J001, Slop Water Loading

Operations, Property and/or Equipment Description:

Tank truck loading of slop water, employing bottom loading with a maximum daily throughput of 1,680 gallons/day, a maximum annual throughput of 613,200 gallons/year and an average material vapor pressure at loading temperature of 10.3 mmHg; All loading of trucks equipped with bottom loading.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Fugitive volatile organic compound (VOC) emissions shall not exceed 0.002 ton per month averaged over a 12-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(C), 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 the Ohio Revised Code (ORC) changes effective August 3,



2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standard (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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 emissions limitations/control measures no longer apply.

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

Permit-to-install and operate (PTIO) P0116371 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for VOC under OAC rule 3745-31-05(A)(3):

- i. Use of submerged or bottom fill on all trucks; and
- ii. Fugitive VOC emissions from slop water truck loading losses shall not exceed 0.02 ton per year.

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 slop water, in gallons; and
 - b. the monthly VOC emissions as calculated in section f)(1)a., in tons.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.



f) Testing Requirements

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

a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 0.002 ton per month as a rolling 12-month average.

Applicable Compliance Method:

This emissions limitation was established using the following calculations:

The loading loss factor was derived using AP-42, Section 5.2, "Loading Loss Equation." The loading loss shall be determined by the following calculation:

$$\text{Produced water loading loss} = 12.46 S * P * M / T$$

$$\text{Produced water loading loss} = 12.46 \times 0.6 \times 0.24 \text{ psia} \times 22.1 \text{ lb/lb mole} / 515.86 \text{ }^\circ\text{R}$$

$$= 0.0766 \text{ lbs/Mgal liquid loaded}$$

$$\text{Annual emissions rate} = (\text{annual Throughput, Mgal/yr}) \times (\text{Loading Loss, lb/Mgal}) / (2,000 \text{ lbs/ton})$$

$$= 613.2 \text{ Mgal/yr} * 0.0766 \text{ lbs/Mgal} / 2,000 \text{ lbs/ton} = 0.02 \text{ ton/yr}$$

$$0.02 \text{ ton/yr} / 12 \text{ months/yr} = 0.002 \text{ ton/month as a rolling 12-month average}$$

Where:

S = saturation factor, 0.60 for submerged/bottom fill loading (AP-42 Chapter 5.2-1)

P = vapor pressure of liquid loaded *

M = molecular weight of vapor *

T = temperature of bulk liquid *

* From permittee's application

Compliance with this emissions limitation shall be based upon the recordkeeping required in d)(1).

b. Emissions Limitation:

PTIO P0116371 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best



Available Technology (BAT) requirements for VOC under OAC rule 3745-31-05(A)(3):

- i. Use of submerged or bottom fill on all trucks; and
- ii. Fugitive VOC emissions from slop water truck loading losses shall not exceed 0.02 ton per year.

Applicable Compliance Method:

The voluntary annual emissions limitation restriction was determined based on the following calculation:

Slop water truck loading:

Truck loading emissions shall be based on the following calculations.

The loading loss factor was derived using AP-42, Section 5.2, "Loading Loss Equation." The loading loss shall be determined by the following calculation:

$$\text{Produced water loading loss} = 12.46 S * P * M / T$$

$$\text{Produced water loading loss} = 12.46 \times 0.6 \times 0.24 \text{ psia} \times 22.1 \text{ lb/lb mole} / 515.86 \text{ } ^\circ\text{R}$$

$$= 0.0766 \text{ lbs/Mgal liquid loaded}$$

$$\text{Annual emissions rate} = (\text{annual Throughput, Mgal/yr}) * (\text{Loading Loss, lb/Mgal}) / (2,000 \text{ lbs/ton})$$

$$= 613.2 \text{ Mgal/yr} * 0.0766 \text{ lbs/Mgal} / 2,000 \text{ lbs/ton} = 0.02 \text{ ton/yr}$$

Where:

S = saturation factor, 0.60 for submerged/bottom fill loading (AP-42 Chapter 5.2-1)

P = vapor pressure of liquid loaded *

M = molecular weight of vapor *

T = temperature of bulk liquid *

* From permittee's application

g) Miscellaneous Requirements

- (1) None.



5. J002, Condensate Loading

Operations, Property and/or Equipment Description:

Pressurized tank truck loading of condensate water, employing bottom loading with a maximum daily throughput of 2,814 gallons/day, a maximum annual throughput of 1,027,110 gallons/year and an average material vapor pressure at loading temperature of 7,757 mmHg. Condensate loading from the pressurized tanks is uncontrolled.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Fugitive volatile organic compound (VOC) emissions shall not exceed 0.00003 ton per month averaged over a 12-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(C), 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 the Ohio Revised Code (ORC) changes effective August 3,



2006 (Senate Bill 265 changes), such that BAT is no longer required by State regulations for National Ambient Air Quality Standard (NAAQS) pollutant(s) less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions 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 emissions limitations/control measures no longer apply.

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

Permit-to-install and operate (PTIO) P0116371 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for VOC under OAC rule 3745-31-05(A)(3):

- i. Use of submerged or bottom fill on all trucks; and
- ii. Fugitive VOC emissions from condensate truck loading losses not captured and vented to the flare and VOC emissions captured and vented to the flare combined shall not exceed 0.0003 tons per year.

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;
 - b. the monthly VOC emissions as calculated in section f)(1)a., in tons.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.



f) Testing Requirements

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

a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 0.00003 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

$(\text{Pressure, psia}) * (\text{Volume, ft}^3) * (\text{Molecular Weight, lb/lb-mol}) * (\text{Number of Disconnects per hour}) * (\% \text{VOC}) / ((\text{Temperature, deg R}) * (\text{Gas constant, ft}^3 * \text{psi/lb-mol} * \text{degR}) * (2,000 \text{ lbs/ton}) * (12 \text{ months/year}))$

$$= (150.0 \text{ psia}) * (0.698 \text{ cubic ft}) * (22.30 \text{ lb/lb-mol}) * (5 \text{ disconnects/hr}) * (0.30) / ((470.5 \text{ deg R}) * (10.73 \text{ cubic ft} * \text{psia/lb-mol} * \text{deg R}) * (2,000 \text{ lbs/ton}) * (12 \text{ months/year}))$$

= 0.00003 ton per month as a rolling 12-month average

b. Emissions Limitation:

PTIO P0116371 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for VOC under OAC rule 3745-31-05(A)(3):

- i. Use of submerged or bottom fill on all trucks; and
- ii. Fugitive VOC emissions from condensate truck loading losses shall not exceed 0.0003 ton per year.

Applicable Compliance Method:

The voluntary annual emissions limitation restriction was determined based on the following calculation:

Condensate truck loading emissions from disconnecting loading lines from pressurized vessels:

Annual emissions shall be based upon the following calculations:

$(\text{Pressure, psia}) * (\text{Volume, ft}^3) * (\text{Molecular Weight, lb/lb-mol}) * (\text{Number of Disconnects per hour}) * (\% \text{VOC}) / ((\text{Temperature, deg R}) * (\text{Gas constant, ft}^3 * \text{psi/lb-mol} * \text{degR}) * (2,000 \text{ lbs/ton}))$



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$$= (150.0 \text{ psia}) * (0.698 \text{ cubic ft}) * (22.30 \text{ lb/lb-mol}) * (5 \text{ disconnects/hr}) * (0.30) / ((470.5 \text{ deg R}) * (10.73 \text{ cubic ft*psia/lb-mol*deg R}) * (2,000 \text{ lbs/ton}))$$

$$= 0.0003 \text{ ton per year}$$

g) Miscellaneous Requirements

(1) None.



6. P003, Dehydration Process

Operations, Property and/or Equipment Description:

Dehydration Process including glycol dehydrator still vent #1 and #2, each with a maximum hourly production rate of 19.2 MMscf/hr and a maximum annual production rate of 167,900 MMscf/year; Each using 20 gal/min of triethylene glycol for natural gas dehydration; Vapors from BTEX condenser go to glycol reboiler with 98% control and 100% capture of VOC emissions.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Install a reboiler control and capture system with a design capture efficiency of 100% and a design control efficiency of at least 98% for volatile organic compound (VOC) emissions. See b)(2)a. below.
b.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.
c.	40 CFR Part 63, Subpart HH (40 CFR 63.760-63.779) [In accordance with 40 CFR 63.760(a)(2)-(3), this emissions unit processes, upgrades, or stores	The dehydration units located at this facility are subject to 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants (NESHAP) From Oil and Natural Gas Production Facilities. The dehydration



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	natural gas or hydrocarbon liquids prior to the point of custody transfer from the facility.]	units at this facility are exempt per 63.764(e)(ii) from the requirements of 63.764(d)(2) due to the actual average emission of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in 63.772(b)(2) of 40 CFR Part 63, Subpart HH.
d.	40 CFR 63.1-15 (40 CFR 63.764)	Table 2 of Subpart HH of 40 CFR Part 63 shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. The permittee has satisfied the 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, 2,006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than 10 tons per year. However, that rule revision has not yet been approved by US EPA as a revision to Ohio's SIP. Therefore, until the SIP revision occurs and the US EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the SIP federally-approved SIP for Ohio. Once US EPA approves the December 1, 2006 version of OAC rule 3745-31-05, these emission limits/control measures no longer apply.
- b. This rule paragraph applies once US EPA approves the December 1, 2006 version of OAC rule 3745-31-05 as part of the SIP.

Permit-to-install and operate (PTIO) P0116371 takes into account the following voluntary restriction as proposed by the permittee for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A)(3):

- i. Emissions from the dehydrator glycol regeneration units shall be vented to a reboiler with 100% capture and a minimum of 98% control efficiency for VOC; and
- ii. VOC emissions shall not exceed 6.84 TPY.

c) Operational Restrictions

- (1) The permittee shall operate the reboiler at all times the dehydrator glycol regeneration unit is in operation for the control of VOC emissions and shall maintain the reboiler in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.



- (2) In the event the reboiler is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (3) Emissions from the dehydrator glycol regeneration unit shall be vented to a reboiler with a minimum of 98% control efficiency for VOC.

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

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the reboiler, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (2) The permittee shall conduct periodic inspections of the reboiler to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency, and it shall be made available to the Ohio EPA upon request.
- (3) In addition to the recommended periodic inspections, not less than once each calendar year, the permittee shall conduct a comprehensive inspection of the reboiler while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the reboiler and shall maintain the following information:
 - a. The date of the inspection;
 - b. A description of each/any problem identified and the date it was corrected;
 - c. A description of any maintenance and repairs performed; and
 - d. The name of the person who performed the inspection.

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

- (5) The permittee shall maintain records that document any time periods when the reboiler was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the flare was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.



e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Design Efficiency:

Install a reboiler and capture system with a design capture efficiency of 100% and a design control efficiency of at least 98% for VOC emissions.

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the reboiler control efficiency of at least 98%.

b. Emissions Limitations:

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

This permit takes into account the following voluntary restriction as proposed by the permittee for the purpose of avoiding BAT requirements under OAC rule 3745-31-05(A)(3):

- i. Emissions from the dehydrator glycol regeneration units shall be vented to a reboiler with 100% capture and a minimum of 98% control efficiency for VOC; and
- ii. VOC emissions shall not exceed 6.84 TPY.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculations based on the emissions factors and other information in the permittee's application:

Gas Stream Emissions:

$$(2 \text{ vents}) * (1 - 0.98) * \frac{38.98 \text{ lb}}{\text{hr}} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} = 6.84 \text{ TPY}$$



Where:

2 = number of glycol still vents

38.98 = uncontrolled VOC emission rate from regenerator off-gas and flash tank emissions plus a 10% safety factor for fluctuations in gas composition

0.98 = reboiler control efficiency

8,760 = operating hours

2,000 = conversion factor

g) Miscellaneous Requirements

(1) None.



7. P005, Condensate Stabilization Unit

Operations, Property and/or Equipment Description:

Condensate stabilization unit controlled by a VRU with 100% capture and 98% control of VOC emissions and a 0.5 mmBtu/hr flare with 98% control when the VRU is down; Flare has a maximum hourly feed rate of 52.56 MMBtu/hr and 23,022.18 MMBtu/yr (based on 438 hours of operation maximum per year and 8,760 hours of operation for the pilot).

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(5), as effective 11/30/2001	Carbon monoxide (CO) emissions from the pilot shall not exceed 0.31 ton per month averaged over a 12-month, rolling period. Nitrogen Oxide (NO _x) emissions from the pilot shall not exceed 0.16 ton per month averaged over a 12-month, rolling period. Install a vapor recovery unit (VRU) and capture system with an overall design control efficiency of at least 98% for volatile organic compound (VOC) emissions. Install a flare and capture system for VRU



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		down time with an overall design control efficiency of at least 98% for VOC emissions. 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 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 per year. However, that rule revision has not yet been approved by US EPA as a revision to Ohio's SIP. Therefore, until the SIP revision occurs and the US EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the SIP federally-approved SIP for Ohio. Once US EPA approves the December 1, 2006 version of OAC rule 3745-31-05, these emission limits/control measures no longer apply.

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

The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions, NO_x emissions and VOC emissions from this air contaminant source since the uncontrolled potential to emit for CO, NO_x and VOC emissions from this emissions unit are less than 10 tons/yr.

c) Operational Restrictions

(1) The permittee shall operate the flare or VRU at all times the during vapor recovery downtime, when the condensate stabilization unit is in operation for the control of VOC emissions and shall maintain the flare in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.

(2) In the event the flare or VRU is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

(3) As the flare is only used for periodic maintenance when the VRU is down, an inherent operational limitation of 438 hours per year has been established for the flaring of emissions associated with the condensate stabilization unit.



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

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare and VRU, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (2) The permittee shall conduct periodic inspections of the flare and VRU to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency, and it shall be made available to the Ohio EPA upon request.
- (3) In addition to the recommended periodic inspections, not less than once each calendar year, the permittee shall conduct a comprehensive inspection of the flare and VRU while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the flare and VRU and shall maintain the following information:
 - a. The date of the inspection;
 - b. A description of each/any problem identified and the date it was corrected;
 - c. A description of any maintenance and repairs performed; and
 - d. The name of the person who performed the inspection.

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

- (5) The permittee shall maintain records that document any time periods when the flare or VRU was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the flare was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.

e) **Reporting Requirements**

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



- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emissions Limitation:

CO emissions shall not exceed 0.31 ton per month as a rolling, 12-month average.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculations based on the emissions factors and other information in the permittee's application:

Pilot Gas Combustion Emissions + Waste Gas Combustion Emissions = Total Flare Emissions.

Pilot Gas Emissions:

$$\frac{411 \text{ scf}}{\text{hr}} * \frac{1,236 \text{ Btu}}{\text{scf}} * \frac{\text{MM}}{10^6} * \frac{0.2755 \text{ lb}}{\text{MMbtu}} * \frac{8,760 \text{ hrs}}{\text{yr}} * \frac{1 \text{ ton}}{2000 \text{ lbs}} * \frac{1 \text{ yr}}{12 \text{ months}}$$

$$= 0.051 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

- 411 = fuel flow rate (scf/hr)
- 1,236 = Fuel heating value (btu/scf)
- 1/10⁶ = btu to MMBtu conversion factor
- 0.2755 = emissions factor [from Draft TNRCC Guidance Document for Flare and Vapor Oxidizers (dated 10/00) for non-assisted high-Btu flares]
- 8,760 = operating hours per year
- 2,000 = pounds per ton
- 12 = months/year



Waste Gas Emissions:

$$\frac{0.2755 \text{ lb}}{\text{MMBtu}} * \frac{23,023 \text{ MMBtu}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.26 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

0.2755 = emissions factor [from Draft TNRCC Guidance Document for Flare and Vapor Oxidizers (dated 10/00) for non-assisted high-Btu flares]

23,023 = maximum annual feed rate in MMBtu/yr

2,000 = pounds per ton

12 = months per year

Total Emissions:

$$= 0.051 \frac{\text{ton}}{\text{m rolling 12}} + 0.26 \frac{\text{ton}}{\text{m rolling 12}} = 0.31 \frac{\text{ton}}{\text{m rolling 12}}$$

b. Emissions Limitation:

NO_x emissions shall not exceed 0.16 ton per month as a rolling, 12-month average.

Applicable Compliance Method:

Compliance shall be demonstrated by the following calculations based on the emissions factors and other information in the permittee's application:

Pilot Gas Combustion Emissions + Waste Gas Combustion Emissions = Total Flare Emissions.

Pilot Gas Emissions:

$$\frac{411 \text{ scf}}{\text{hr}} * \frac{1,236 \text{ Btu}}{\text{scf}} * \frac{\text{MM}}{10^6} * \frac{0.1380 \text{ lb}}{\text{MMbtu}} * \frac{8,760 \text{ hrs}}{\text{yr}} * \frac{1 \text{ ton}}{2000 \text{ lbs}} * \frac{1 \text{ yr}}{12 \text{ months}} = 0.026 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

411 = fuel flow rate (scf/hr)

1,236 = Fuel heating value (btu/scf)

1/10⁶ = btu to MMBtu conversion factor

0.1380 = emissions factor [from Draft TNRCC Guidance Document for Flare and Vapor Oxidizers (dated 10/00) for non-assisted high-Btu flares]



8,760 = operating hours per year

2,000 = pounds per ton

12 = months/year

Waste Gas Emissions:

$$\frac{0.1380 \text{ lb}}{\text{MMBtu}} * \frac{23,023 \text{ MMBtu}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} = 0.14 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

0.1380 = emissions factor [from Draft TNRCC Guidance Document for Flare and Vapor Oxidizers (dated 10/00) for non-assisted high-Btu flares]

23,023 = maximum annual feed rate in MMBtu/yr

2,000 = pounds per ton

12 = months per year

Total Emissions:

$$= 0.026 \frac{\text{ton}}{\text{m rolling 12}} + 0.14 \frac{\text{ton}}{\text{m rolling 12}} = 0.16 \frac{\text{ton}}{\text{m rolling 12}}$$

c. Design Efficiency:

Install a VRU and capture system with an overall design control efficiency of at least 98% for VOC emissions.

Install a flare and capture system for VRU down time with an overall design control efficiency of at least 98% for VOC emissions.

Applicable Compliance Method:

Compliance shall be demonstrated by the manufacturer's guaranteed specifications of 98% control for the flare and VRU.

g) Miscellaneous Requirements

(1) None.



8. P006, Blowdowns

Operations, Property and/or Equipment Description:

Compressor blowdowns: with a maximum of 52 blowdowns per year and a maximum of one blowdown per hour with each event having a maximum volume of 8,400 scf/event.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Fugitive volatile organic compound (VOC) emissions shall not exceed 0.49 ton per month averaged over a 12-month, rolling period. 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 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 ten tons per year. However, that rule revision has not yet



been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, 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 ten tons per year.

- c) Operational Restrictions

- (1) None.

- d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. number of compressor blowdown 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;
 - d. the rolling, 12-month summation of the volume of gas emitted from all compressor blowdown events, in scf; and
 - e. total tons of VOC emissions per month averaged over rolling, 12-month period.

- e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12 months for each air contaminant source identified in this permit.

- f) Testing Requirements

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



a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 0.49 ton per month averaged over a 12-month, rolling period.

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.

g) Miscellaneous Requirements

(1) None.



9. P007, Pigging Operations

Operations, Property and/or Equipment Description:

Pigging operations: with a maximum of 52 pigging operations per year and 1 pigging operation per hour with each event having a volume of 2,449 scf.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) **Applicable Emissions Limitations and/or Control Requirements**

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Fugitive volatile organic compound (VOC) emissions shall not exceed 0.07 ton per month averaged over a twelve-month, rolling period. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b. below.

(2) **Additional Terms and Conditions**

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has



not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, 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 emissions is less than 10 tons/yr.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records on a monthly basis:
 - a. the date, number and type of each maintenance pigging event;
 - b. mole% of each VOC component in the gas stream using a representative analysis;
 - c. total volume of gas emitted from each maintenance pigging event; and
 - d. total volume of gas emitted from all maintenance pigging events as a tons per month, rolling, 12-month total.
 - e. total tons of VOC emissions per month averaged over rolling, 12-month period.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

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



a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 0.07 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The VOC emissions limitation was established by the following calculation using the inputs provided in the permittee's application, provided gas analysis plus 10% safety factor and the recordkeeping requirements in d)(1):

$$\text{VOC (tons per month, averaged over a twelve-month, rolling period)} = \frac{[\text{Total lb/event VOC estimate per one hour pigging event} \times \# \text{ of one hour pigging events per year} \times 1 \text{ ton}/2,000 \text{ pounds}]}{12 \text{ months}}$$

Where:

Total VOC emissions estimate per one hour event = 32.97 lbs/event (based on 2,449 scf/event, 0.054 lb/scf and 25% VOC of gas stream as submitted in application)

Total maximum one hour pigging events per year = 52 (as submitted in application)

g) Miscellaneous Requirements

(1) None.



10. P008, Starter Vents

Operations, Property and/or Equipment Description:

Engine starter vents for the two compressor engines (P001 and P002): with a maximum of 3 starts per engine per hour and a maximum of 200 starts per year with each starter vent having a volume of 900 scf/event.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	<p>Volatile organic compound (VOC) emissions shall not exceed 0.10 ton per month averaged over a 12-month, rolling period.</p> <p>See b)(2)a.</p>
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 ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of 3745-31-05, 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 ten tons per year.

- c) Operational Restrictions

- (1) None.

- d) Monitoring and/or Recordkeeping Requirements

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

- e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

- f) Testing Requirements

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



a. Emissions Limitation:

VOC emissions shall not exceed 0.10 ton per month averaged over a 12-month, rolling period.

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.

g) Miscellaneous Requirements

(1) None.



11. P801, Fugitive Emissions

Operations, Property and/or Equipment Description:

Fugitive equipment leaks from various components, including connectors, flanges, compressors, open ended lines, pump seals, and valves.

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) and OAC rule 3745-31-05(A)(3)	Fugitive volatile organic compound (VOC) emissions shall not exceed 1.06 tons per month averaged over a twelve-month, rolling period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) None.

e) Reporting Requirements

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

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.



f) Testing Requirements

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

a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 1.06 tons per month averaged over a twelve-month, rolling period

Applicable Compliance Method:

The emissions limitation was established by the following calculation based on the emissions factors (lb/hr/component) provided in the permittee's application and the provided speciated gas analysis (VOC emissions + 10% safety factor):

VOC = [(# of valves in gas service X gas service valve EF X 0.25 VOC wt fraction + 10%)

+ (# of valves in light liquid service X light oil service valve EF X 1.0 VOC wt fraction + 10%)

+ (# of valves in water/light oil service X light oil service valve EF X 1.0 VOC wt fraction + 10%)

+ (# of valves in heavy liquid service X light oil service valve EF X 1.0 VOC wt fraction + 10%)

+ (# of relief valves in gas service X gas service relief valve EF X 0.25 VOC wt fraction + 10%),

+ (# of relief valves in light liquid service X gas service relief valve EF X 1.0 VOC wt fraction + 10%),

+ (# of relief valves in water/light oil service X gas service relief valve EF X 1.0 VOC wt fraction + 10%),

+ (# of relief valves in heavy liquid service X gas service relief valve EF X 1.0 VOC wt fraction + 10%),

+ (# of compressor seals in gas service X gas service compressor seals EF X 0.25 VOC wt fraction + 10%)

+ (# of compressor seals in light liquid service X gas service compressor seals EF X 1.0 VOC wt fraction + 10%)

+ (# of compressor seals in water/light oil service X gas service compressor seals EF X 1.0 VOC wt fraction + 10%)



- + (# of compressor seals in heavy liquid service X gas service compressor seals EF X 1.0 VOC wt fraction + 10%)
- + (# of pump seals in gas service X light oil service pump EF X 0.25 VOC wt fraction+ 10%)
- + (# of pump seals in light liquid service X light oil service pump EF X 1.0 VOC wt fraction+ 10%)
- + (# of pump seals in water/light oil service X light oil service pump EF X 1.0 VOC wt fraction+ 10%)
- + (# of pump seals in heavy oil service X light oil service pump EF X 1.0 VOC wt fraction+ 10%)
- + (# of flanges in gas service X gas service flange EF X 0.25 VOC wt fraction + 10%)
- + (# of flanges in light liquid service X gas service flange EF X 1.0 VOC wt fraction + 10%)
- + (# of flanges in water/light oil service X gas service flange EF X 1.0 VOC wt fraction + 10%)
- + (# of flanges in heavy oil service X gas service flange EF X 1.0 VOC wt fraction + 10%)
- + (# of connectors in gas service X gas service connector EF X 0.25 VOC wt fraction+ 10%)
- + (# of connectors in light liquid service X light oil service connector EF X 1.00 VOC wt fraction + 10%)
- + (# of connectors in water/light oil service X light oil service connector EF X 1.00 VOC wt fraction + 10%)
- + (# of connectors in heavy oil service X light oil service connector EF X 1.00 VOC wt fraction + 10%)

X 8,760 hrs/yr X 1 ton/2,000 lbs and divided by 12 months ≥ 1.06 tons per month averaged over a 12-month, rolling period.

Where:

- Valve EFs = 0.00992 lb/hr/source for gas service;
- 0.00551 lb/hr/source for light liquid service;
- 0.000216 lb/hr/source for water/light oil service; and
- 0.0000185 lb/hr/source for heavy oil service



Relief valves EFs = 0.0194 lb/hr/source for gas service;
0.0165 lb/hr/source for light liquid service
0.0309 lb/hr/source for water/light oil service; and
0.0000683 lb/hr/source for heavy oil service

Compressor seals EFs = 0.0194 lb/hr/source for gas service;
0.0165 lb/hr/source for light liquid service
0.0309 lb/hr/source for water/light oil service; and
0.0000683 lb/hr/source for heavy oil service

Pump Seal EFs = 0.00529 lb/hr/source for gas service;
0.02866 lb/hr/source for light liquid service
0.000052 lb/hr/source for water/light oil service; and
0.00113 lb/hr/source for heavy oil service

Flange EFs = 0.00086 lb/hr/source for gas service;
0.000243 lb/hr/source for light liquid service
0.000006 lb/hr/source for water/light oil service; and
0.00000086 lb/hr/source for heavy oil service

Connector EFs = 0.00044 lb/hr/source for gas service;
0.000463 lb/hr/source for light liquid service
0.000243 lb/hr/source for water/light oil service; and
0.0000165 lb/hr/source for heavy oil service

g) Miscellaneous Requirements

(1) None.



12. T001, Slop Storage Tanks

Operations, Property and/or Equipment Description:

Slop Storage Tank #1: white steel vertical cylindrical fixed roof tank (15 ft high and diameter of 10 ft) with a maximum tank and working capacity of 210 barrels (42 gallons/barrel) employing splash fill with a maximum daily throughput of 40 barrels and a maximum annual throughput of 14,600 barrels; storing slop with a density of 8.32 lbs/gal, a maximum vapor pressure of 0.24 psi and a vapor molecular weight of 22.1 lbs/lb-mole.

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	Volatile organic compound (VOC) emissions shall not exceed 0.002 ton per month averaged over a 12-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
c.	40 CFR Part 60, Subpart OOOO (60.5360-60.5430) [In accordance with 60.5365 (e), this emissions units constitutes a storage vessel that is located at an affected crude oil and natural gas production,	Each tank at this facility has a potential to emit after control of less than 6 TPY and are therefore, exempt from the requirements of 40 CFR Part 60, Subpart OOOO. Following the compliance date of October



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	transmission and distribution facility]	15, 2013, each storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to exceed 6 tons per year, shall reduce VOC emissions by 95% or greater.
d.	40 CFR Part 60, Subpart A (60.1-60.19)	General provisions may apply.

(2) Additional Terms and Conditions

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

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the annual throughput of condensate and produced water in gallons per year.

e) Reporting Requirements

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



of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.

f) Testing Requirements

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

a. Emissions Limitation:

VOC emissions shall not exceed 0.002 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Methods:

Compliance is demonstrated by the following calculation:

$$\text{VOC} = (2 \text{ tanks}) * ((\text{working loss lb/yr}) + (\text{breathing loss, lb/yr}) / (2,000 \text{ lbs/ton})) / 12 \text{ months per year}$$

$$= (2 \text{ tanks}) * ((8.35 \text{ lb/yr (as submitted in permittee's application)}) + (2.94 \text{ lb/yr (as submitted in permittee's application)}) / (2,000 \text{ lbs/ton})) / 12 \text{ months/year} = 0.002 \text{ tons per month.}$$

g) Miscellaneous Requirements

(1) None.



13. T003, Pressurized Bullet Tanks

Operations, Property and/or Equipment Description:

Pressurized Bullet Tanks: white steel cylindrical horizontal pressure tank (67 ft in length and 9.08 ft diameter) with a maximum tank and working capacity of 30,000 gallons employing submerged fill with a maximum daily throughput of 67 barrels and a maximum annual throughput of 24,455 barrels; storing condensate with a density of 5.29 lbs/gal, a maximum vapor pressure of 135 psi and a vapor molecular weight of 62.728 lbs/lb-mole; tank was equipped with a vapor recovery unit (VRU) with an overall control efficiency of 98% for VOC emissions. During VRU downtime, tanks vent to the atmosphere (not to exceed 438 hours per year).

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	Install a vapor recovery unit (VRU) and capture system with an overall design control efficiency of at least 98% for volatile organic compound (VOC) emissions. See b)(2)a.
b.	OAC rule 3745-31-05(C), as effective 12/01/2006	See b)(2)b.
b.	40 CFR Part 60, Subpart OOOO (60.5360-60.5430)	Each tank at this facility has a potential to emit after control of less than 6 TPY and are therefore, exempt from the



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	[In accordance with 60.5365 (e), this emissions units constitutes a storage vessel that is located at an affected crude oil and natural gas production, transmission and distribution facility]	requirements of 40 CFR Part 60, Subpart OOOO. Following the compliance date of October 15, 2013, each storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to exceed 6 tons per year, shall reduce VOC emissions by 95% or greater.
c.	40 CFR Part 60, Subpart A (60.1-60.19)	General provisions may apply.

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

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

Permit-to-install and operate (PTIO) P0116371 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purposes of avoiding BAT requirements under OAC rule 3745-31-05(A)(3):

- i. Operate a vapor recovery unit (VRU) and capture system with a design over all control efficiency of at least 98% for VOC emissions; and
- ii. VOC emissions shall not exceed 6.08 tons per year (when VRU is used and when vented to atmosphere due to maintenance, combined).

c) Operational Restrictions

- (1) The permittee shall install and operate a VRU for the control of VOC emissions whenever this emissions unit is in operation and shall maintain the VRU in accordance



with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

- (2) In the event the VRU is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (3) As the emissions from the pressurized bullet tanks are vented to the atmosphere only during time that the VRU is down for periodic maintenance, an inherent operational limitation of 438 hours per year has been established for the atmospheric venting from the bullet tanks.

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

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the VRU, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (2) The permittee shall conduct periodic inspections of the VRU to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.
- (3) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the VRU and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the VRU and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

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



- (5) The permittee shall maintain records that document any time periods when the VRU was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the VRU was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.
 - (6) The permittee shall record the annual throughput of condensate and produced water in gallons per year.
 - (7) The permittee shall record, monthly, the hours of VRU downtime.
- e) Reporting Requirements
- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following method:
 - a. Design Efficiency Standard:

Install a VRU and capture system with a design overall control efficiency of at least 98% for VOC emissions.

Applicable Compliance Methods:

Compliance is demonstrated by the manufacturer's design efficiency of an overall control efficiency of at least 98% for VOC emissions.
 - b. Emissions Limitation:

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.

 - i. Operate a VRU and capture system with a design over all control efficiency of at least 98% for VOC emissions; and
 - ii. VOC emissions shall not exceed 6.08 tons per year (when VRU is used and when vented to atmosphere due to maintenance, combined).



Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's design efficiency of an overall control efficiency of at least 98% for VOC emissions.

This emissions limitation was established using a VRU annual downtime of 5% (438 hours/year). Compliance with this emissions limitation shall be determined by the downtime hours per year of the VRU and the following calculation:

$$(27.75 \text{ pound VOC/hour}) * (438 \text{ hours/year}) / (2,000 \text{ pounds/ton}) = 6.08$$

Where:

27.75 pound VOC/hour is from Promax Design

438 hours/year is the maximum hours of VRU downtime per year

2,000 pounds per ton is a conversion factor

g) Miscellaneous Requirements

- (1) None.



14. Emissions Unit Group - Compressor Engines: P001, P002,

EU ID	Operations, Property and/or Equipment Description
P001	Compressor Engine #1 fired by natural gas; Caterpillar G3616LE 4-stroke lean burn engine with a maximum input capacity of 34.40 mmBtu/hr and a maximum output capacity of 4,735 HP controlled with catalytic oxidation (reduces CO and formaldehyde emissions by 80% and VOC emissions by 50%) Manufactured after 7/1/2010
P002	Compressor Engine #2 fired by natural gas; Caterpillar G3616LE 4-stroke lean burn engine with a maximum input capacity of 34.40 mmBtu/hr and a maximum output capacity of 4,735 HP controlled with catalytic oxidation (reduces CO and formaldehyde emissions by 80% and VOC emissions by 50%) Manufactured after 7/1/2010

a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

(1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.

a. None.

(2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.

a. None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/01	Particulate emissions (PE) shall not exceed 0.13 ton per month averaged over a 12-month, rolling period. Install an engine that is designed to meet 0.6 gram/Hp-hr of volatile organic compounds (VOC) emissions. 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 3745-31-05(C)	See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	<p>Install an engine that is designed to meet 2.5 grams/Hp-hr of carbon monoxide (CO) emissions.</p> <p>Install an engine that is designed to meet 0.7 gram/Hp-hr of nitrogen oxides (NO_x) emissions.</p>
f.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 pound/million Btu of actual heat input.
g.	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
h.	OAC rule 3745-18-06(E)	This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A).
i.	<p>40 CFR Part 60, Subpart OOOO (40 CFR 60.5360 – 60.5430)</p> <p>[In accordance with 40 CFR 63.5365(c), this emissions unit is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment subject to the emissions limitations and control measures in this section.]</p>	The reciprocating compressor, constructed, modified, or reconstructed after 8/23/11 and located between the wellhead and the point of custody transfer to the natural transmission and storage segment, shall meet the requirements of 40 CFR 60, Subpart OOOO no later than 10/15/12 or upon initial startup following that date; and by tracking either the hours of operation or number of months between compressor rod packing replacement.
j.	<p>40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248)</p> <p>[In accordance with 40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1, this emissions unit is a 4,735 hp, natural gas-fired, stationary spark internal combustion engine manufactured after July 1, 2010 that is located at a new natural gas compressor station and is subject to the emission limitations and control measures specified in this section.]</p>	<p>NO_x emissions shall not exceed 1.00 g/hp-hr or 82 ppmvd at 15% O₂.</p> <p>CO emissions shall not exceed 2.0 g/hphr or 270 ppmvd at 15% O₂.</p> <p>VOC emissions shall not exceed 0.7 g/hp-hr or 60 ppmvd at 15% O₂.</p> <p>[40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]</p> <p>See b(2)d. below.</p>
k.	40 CFR Part 60.1-19 (40 CFR 60.4246)	Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 –



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		19 apply.

(2) Additional Terms and Conditions

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

- 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.

Permit-to-install and operate (PTIO) P0116371 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):

- i. The permittee shall employ an air-to-fuel ratio controller with the operation of oxidation catalyst. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times;
- ii. The permittee shall employ an oxidation catalyst or equivalent that shall have at least a 50% design removal efficiency for VOC at maximum rated capacity (0.6 gram/Hp-hr); and
- iii. VOC emissions shall not exceed 7.93 TPY.
- d. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:



60.4236(a)	Installation deadlines
60.4243(b)	Compliance Demonstration

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall install and operate the engines with an oxidation catalyst for the control of CO and VOC emissions whenever this emissions unit is in operation and shall maintain the engines in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (3) In the event the engine is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the engine shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (4) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

60.4234	Duration of compliance with emission standards
60.2423(b)	Maintenance requirements
60.4243(e)	Alternative fuel

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than gaseous fuels, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the engines, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (3) The permittee shall conduct periodic inspections of the engine to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the



manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

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

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

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

60.4245(a), (c) and (d)	Notification, record keeping, and reporting requirements
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e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.



- (3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (4) The permittee shall submit notifications and reports to the Ohio EPA, Southeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:

60.4243(b)(2)(ii) and 60.4245	Maintain records of maintenance plan and records of maintenance conducted in the engine
60.4245(a)	Maintain records of notifications and supporting documentation
60.4245(c)	Submit initial notification

f) Testing Requirements

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

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

Applicable Compliance Method:

The emission limitation is based on the company supplied design estimate as supplied in the PTIO application A0050082 received February 26, 2014.
 - b. Design Efficiency:

Install an engine that is designed to meet 2.5 grams/Hp-hr of CO emissions.

Applicable Compliance Method:

The emission limitation is based on the company supplied design estimate as supplied in the PTIO application A0050082 received February 26, 2014.
 - c. Design Efficiency:

Install an engine that is designed to meet 0.6 gram/Hp-hr of VOC emissions.

Applicable Compliance Method:

The emission limitation is based on the company supplied design estimate as supplied in the PTIO application A0050082 received February 26, 2014.



d. Emissions Limitation:

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

Applicable Compliance Method:

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

e. Emissions Limitations:

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

PE shall not exceed 0.13 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

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

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

The ton per month emission limitation averaged over a 12-month, rolling period was established by multiplying an emission factor of 0.01 pound/million Btu, the emission factor is specified in AP-42 Table 3.2-2 (7/00), by the maximum heat input of the engine (34.40 million Btu/hour), multiplied by 8,760 hours in a year, and divided by 12 months per year and 2,000 lbs per ton.

f. Emissions Limitations:

NO_x emissions shall not exceed 1.00 g/hp-hr or 82 ppmvd at 15% O₂.

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

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

Applicable Compliance Method:

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

- (2) When purchasing a non-certified engine, the permittee shall demonstrate compliance with the emission standards specified in 40 CFR 60.4233(e) and according to the requirements specified in 40 CFR 60.4244, as applicable. The permittee must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practices for minimizing emissions.



The permittee has chosen to demonstrate compliance with the emission standards specified in §60.4233(e), ORC 3704.03(T) and OAC rule 3745-31-05(A)(3) by performing a stack test, and therefore 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. An initial performance test shall be performed to demonstrate compliance with the mass emissions limitations and design efficiencies in f)(1)a. –c. and f)(1)f. of this permit 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 subsequent performance test.
 - c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
 - d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office's refusal to accept the results of the emission test(s).
 - e. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
 - f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.
- g) Miscellaneous Requirements
- (1) None.



15. Emissions Unit Group - HMO Heaters: B003, B004,

EU ID	Operations, Property and/or Equipment Description
B003	HMO Heater - Cryo #1 fired by natural gas; with a maximum input capacity of 20.844 mmBtu/hr.
B004	HMO Heater - Cryo #2 fired by natural gas; with a maximum input capacity of 20.844 mmBtu/hr.

- a) This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - (1) For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - a. None.
 - (2) For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - a. None.
- b) Applicable Emissions Limitations and/or Control Requirements
 - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 11/30/2001	Carbon monoxide (CO) emissions shall not exceed 0.57 ton per month averaged over a 12-month, rolling period. Nitrogen oxide (NO _x) emissions shall not exceed 0.68 ton per month averaged over a 12-month, rolling period. Particulate emissions (PE) shall not exceed 0.05 ton per month averaged over a 12-month, rolling period. Sulfur dioxide (SO ₂) emissions shall not exceed 0.003 ton per month averaged over a 12-month, rolling period.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		Volatile organic compound (VOC) emissions shall not exceed 0.04 ton per month averaged over a 12-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/2006	See b)(2)b.
c.	OAC rule 3745-17-07(A)(1)	Visible PE from any stack shall not exceed 20 percent opacity as a six-minute average, except as provided by the rule.
c.	OAC rule 3745-17-10(B)(1)	PE shall not exceed 0.020 lb/MMBtu of actual heat input.
d.	40 CFR Part 60, Subpart Dc [40 CFR 60.40c – 48c] In accordance with 40 CFR 60.40c(A), this facility is a steam generating unit for which construction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 MMBtu/hr) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).	See b)(2)c., d)(2), e)(4)

(2) Additional Terms and Conditions

- a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to OAC rule 3745-31-05(A)(3), as effective November 30, 2001, in this permit. On December 1, 2006, paragraph (A)(3) of OAC rule 3745-31-05 was revised to conform to ORC changes effective August 3, 2006 (S.B. 265 changes), such that BAT is no longer required by State regulation for NAAQS pollutant emissions less than ten tons per year. However, that rule revision has not yet been approved by U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revision to OAC rule 3745-31-05, the requirement to satisfy BAT still exists as part of the federally-approved SIP for Ohio. Once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, these emission limits/control measures no longer apply.
- b. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions, NO_x emissions, PE, SO₂ emissions and VOC emissions from this air contaminant source since the uncontrolled potential to emit for CO, NO_x, PE, SO₂ and VOC emissions are less than 10 tons/yr.



c. As submitted in application A0050082, received February 26, 2014, the permittee has committed to complying with 40 CFR Part 60, Subpart Dc by only burning natural gas in this emissions unit in accordance with 40 CFR 60.48c(g)(2).

c) Operational Restrictions

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

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 reporting requirements under 40 CFR Part 60, Subpart Dc, including the following:

60.48c(g)(1)	As an alternative to 60.48c(g)(1), combust only natural gas and record the amount of fuel combusted during each month.
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e) Reporting Requirements

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

(2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve-months for each air contaminant source identified in this permit.

(3) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 day after the deviation occurs.

(4) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart Dc, including the following:

60.48c(a)(1)-(4)	Initial notification
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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. Emissions Limitation:

CO emissions shall not exceed 0.57 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (20.844 MMBtu/hr) multiplied by an emissions factor of 84 lb/mm scf (AP 42 Table 1.4-1 (7/98)) divided by 1,120 Btu/scf, multiplied by the actual operating hours per year of the emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

b. Emissions Limitation:

NO_x emissions shall not exceed 0.68 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (20.844 MMBtu/hr) multiplied by an emissions factor of 100 lb/mm scf (AP 42 Table 1.4-1 (7/98)) divided by 1,120 Btu/scf, multiplied the actual operating hours per year of the emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

c. Emissions Limitation:

PE shall not exceed 0.05 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (20.844 MMBtu/hr) multiplied by an emissions factor of 7.6 lb/mm scf (AP 42 Table 1.4-2 (7/98)) divided by 1,120 Btu/scf, multiplied by the actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

d. Emissions Limitation:

SO₂ emissions shall not exceed 0.003 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (20.844 MMBtu/hr) multiplied by the sulfur content of 4.0 scf S/MMscf of gas, divided by 1,120 Btu/scf, divided by 379 scf/1 lb-mol multiplied by 32.06 lb S/lb-mol multiplied by 64.06 lb SO₂ / 32.06lb S, multiplied by the



actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

e. Emissions Limitation:

VOC emissions shall not exceed 0.04 ton per month averaged over a 12-month, rolling period.

Applicable Compliance Method:

Compliance with this emissions limitation may be determined using the maximum rating of the heater (20.844 MMBtu/hr) multiplied by an emissions factor of 5.5 lb/mmscf (AP 42 Table 1.4-2 (7/98)) divided by 1,120 Btu/scf, multiplied by the actual operating hours per year for this emissions unit, divided by 2,000 lbs/ton and divided by 12 months per year.

f. Emissions Limitation:

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

Applicable Compliance Method:

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

g. Emissions Limitation:

PE shall not exceed 0.020 lb/MMBtu of actual heat input.

Applicable Compliance Method:

If required, particulate emissions shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources", and the procedures specified in OAC rule 3745 17 03(B)(9). Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

g) Miscellaneous Requirements

- (1) None.