



Environmental Protection Agency

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

9/6/2012

Hillary Moseley
Utica Gas Services, L.L.C.- Augusta Compressor Facility
P.O. Box 18312
Oklahoma City, OK 73154

RE: DRAFT AIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0210012004
Permit Number: P0110302
Permit Type: Initial Installation
County: Carroll

Certified Mail

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

Dear Permit Holder:

A draft of the Ohio Administrative Code (OAC) Chapter 3745-31 Air Pollution Permit-to-Install and Operate (PTIO) for the referenced facility has been issued for the emissions unit(s) listed in the Authorization section of the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the permit. A public notice will appear in the Ohio EPA Weekly Review and the local newspaper, Free Press Standard. A copy of the public notice and the draft permit are enclosed. This permit can be accessed electronically on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Issued Air Pollution Control Permits" link. Comments will be accepted as a marked-up copy of the draft permit or in narrative format. Any comments must be sent to the following:

Andrew Hall
Permit Review/Development Section
Ohio EPA, DAPC
122 South Front Street
Columbus, Ohio 43215

and Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087

Comments and/or a request for a public hearing will be accepted within 30 days of the date the notice is published in the newspaper. You will be notified in writing if a public hearing is scheduled. A decision on issuing a final permit-to-install will be made after consideration of comments received and oral testimony if a public hearing is conducted. Any permit fee that will be due upon issuance of a final Permit-to-Install is indicated in the Authorization section. Please do not submit any payment now. If you have any questions, please contact Ohio EPA DAPC, Northeast District Office at (330)425-9171.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification
Ohio EPA-NEDO; Pennsylvania; West Virginia



Permit Strategy Write-Up

1. Check all that apply:

Synthetic Minor Determination

Netting Determination

2. Source Description: This is a new installation of additional equipment at a natural gas gathering station (or central delivery point) in Carroll County. The facility already has one dessicant dehydration unit and one 400 bbl condensate tank that don't require permitting. The additional equipment include a 35 mmscfd triethylene glycol dehydration unit, truck loading, fugitive equipment leaks and an enclosed flare. Here is a description of the process from the application:

The natural gas inlet stream from surrounding area wells enters the facility through an inlet separator and enters the triethylene glycol dehydration unit before exiting the facility. The dehydration unit has the option of using one of two (2) glycol pumps, an electric primary pump or secondary gas-injection pumps. In the dehydration process, gas passes through a contactor vessel where water is absorbed by the glycol. The "rich" glycol containing water goes to the glycol dehydrator reboiler where heat is used to boil off the water. The heat is supplied by a natural gas-fired reboiler that exhausts to the atmosphere. Still vent vapors from the 35-MMSCFD dehydration unit will be controlled by an air-cooled condenser. Non-condensables from the still column overheads will be routed to the enclosed flare. Flash tank off-gas from the dehydration unit will be burned as fuel. The excess flash gas will be sent to the condensate storage tank for recovery in the VRU or routed to the enclosed flare. Condensate from the inlet separator is stored in one (1) 400-bbl storage tank. Condensate truck loading also takes place at the facility, as well as emissions from fugitive sources.

The VRU will capture all the working, breathing, and flashing emissions from the condensate tank and excess dehydrator flash tank off-gases and convey them to the transmission line. The recovered flash gas is rerouted to the inlet separator. Under normal operations, the VRU is a closed system and no emissions are released to the atmosphere. The emissions from the condensate tank and the dehydrator flash tank gases can also be routed to the enclosed flare.

3. Facility Emissions and Attainment Status: Carroll County is currently in attainment for all criteria pollutants. Potential uncontrolled facility emissions of VOC are greater than 100 TPY, so the facility is requesting federally enforceable restrictions to synthetic minor out of Title V. Potential uncontrolled HAP emissions from the dehydration unit would also be greater than 25 TPY, so the federally enforceable restrictions will also be used to synthetic minor out of MACT. Per OAC rule 3745-77-01(X)(2), the fugitive emissions from the component leaks shall not be included in the determination of major source status.
4. Source Emissions: Actual emissions with the use of a flare as a control device will reduce emissions to less than or equal to the allowable emissions.
5. Conclusion: The permit requirements that require usage of the flare as a control device with 98% destruction efficiency will ensure that the tank and dehydrator remain below Title V and MACT thresholds.

6. Please provide additional notes or comments as necessary:

None

7. Total Permit Allowable Emissions Summary (for informational purposes only):

<u>Pollutant</u>	<u>Tons Per Year</u>
NOx	2.14
CO	11.63
VOC	16.89
HAPs	0.63

PUBLIC NOTICE
9/6/2012 Issuance of Draft Air Pollution Permit-To-Install and Operate

Utica Gas Services, L.L.C.- Augusta Compressor Facility
8034 Bane Rd NE,
East Twp., OH 44427
Carroll County

FACILITY DESC.: Crude Petroleum and Natural Gas Extraction

PERMIT #: P0110302

PERMIT TYPE: Initial Installation

PERMIT DESC: A new installation of a natural gas gathering station for removing water from natural gas. Emissions units include a dehydration unit, storage tank, truck loading, enclosed flare and fugitive leaks.

The Director of the Ohio Environmental Protection Agency issued the draft permit above. The permit and complete instructions for requesting information or submitting comments may be obtained at: <http://epa.ohio.gov/dapc/permitsonline.aspx> by entering the permit # or: Jana Gannon, Ohio EPA DAPC, Northeast District Office, 2110 East Aurora Road, Twinsburg, OH 44087. Ph: (330)425-9171

Ohio

**Environmental
Protection Agency**

DRAFT

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

Utica Gas Services, L.L.C.- Augusta Compressor Facility

Facility ID:	0210012004
Permit Number:	P0110302
Permit Type:	Initial Installation
Issued:	9/6/2012
Effective:	To be entered upon final issuance
Expiration:	To be entered upon final issuance



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

for

Utica Gas Services, L.L.C.- Augusta Compressor Facility

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Authorization

Facility ID: 0210012004
Application Number(s): A0043575
Permit Number: P0110302
Permit Description: A new installation of a natural gas gathering station for removing water from natural gas. Emissions units include a dehydration unit, storage tank, truck loading, enclosed flare and fugitive leaks.
Permit Type: Initial Installation
Permit Fee: \$900.00 *DO NOT send payment at this time, subject to change before final issuance*
Issue Date: 9/6/2012
Effective Date: To be entered upon final issuance
Expiration Date: To be entered upon final issuance
Permit Evaluation Report (PER) Annual Date: To be entered upon final issuance

This document constitutes issuance to:

Utica Gas Services, L.L.C.- Augusta Compressor Facility
8034 Bane Rd NE
East Twp., OH 44427

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

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

The above named entity is hereby granted 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

Scott J. Nally
Director



Authorization (continued)

Permit Number: P0110302

Permit Description: A new installation of a natural gas gathering station for removing water from natural gas. Emissions units include a dehydration unit, storage tank, truck loading, enclosed flare and fugitive leaks.

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

- Emissions Unit ID: J001
Company Equipment ID: TL-1
Superseded Permit Number:
General Permit Category and Type: Not Applicable
Emissions Unit ID: P001
Company Equipment ID: DEHY-1
Superseded Permit Number:
General Permit Category and Type: Not Applicable
Emissions Unit ID: P002
Company Equipment ID: FLARE-1
Superseded Permit Number:
General Permit Category and Type: Not Applicable
Emissions Unit ID: P801
Company Equipment ID: FUG
Superseded Permit Number:
General Permit Category and Type: Not Applicable
Emissions Unit ID: T001
Company Equipment ID: TK-1
Superseded Permit Number:
General Permit Category and Type: Not Applicable



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. Unless otherwise specified, facilities subject to one or more synthetic minor restrictions must use Ohio EPA's "Air Services" to submit annual emissions associated with this permit requirement. 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 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 Ohio EPA DAPC, Northeast District Office 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 submitting¹ 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 emissions 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.

¹Permittees that use Ohio EPA's "Air Services" can mark the affected emissions unit(s) as "permanently shutdown" in the facility profile along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update will constitute notifying of the permanent shutdown of the affected emissions unit(s).

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

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

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

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

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

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

B. Facility-Wide Terms and Conditions



1. This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).
 - a) For the purpose of a permit-to-install document, the facility-wide terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (1) None.
 - b) For the purpose of a permit-to-operate document, the facility-wide terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (1) None.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities: P001. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.

C. Emissions Unit Terms and Conditions



1. J001, TL-1

Operations, Property and/or Equipment Description:

Condensate truck 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. b)(1)c, b)(2)c - b)(2)i, c)(1), c)(2), d)(1) - d)(3), e)(1), e)(5), e)(6), and f)(1)a.

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A)(3), as effective 11/30/01. Row b: OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06. Row c: OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V).

(2) Additional Terms and Conditions

a. The permittee has satisfied the Best Available Technology (BAT) requirements pursuant to Ohio Administrative Code (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 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 Standards (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, then these emission 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 State Implementation Plan.
 - i. 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 calculated annual emission rate for VOC is less than ten tons per year taking into account the federally enforceable limit of 1.30 tons per year of OC as a rolling, 12-month summation of the monthly emissions as established under OAC rule 3745-31-05(D).
- c. For any transfer of condensate from a tank to a tank truck, the displaced vapors shall be collected by a vapor balance system. The vapor balance system shall be equipped with a vapor tight vapor line from the tank to the tank truck and a means to ensure that the vapor line is connected before condensate is transferred. The vapor balance system shall be designed and operated to route at least 99 percent of displaced vapors from the loading process back to the tank.
- d. All condensate loading lines and vapor lines shall be equipped with fittings which are vapor tight.
- e. All leaks in liquid lines and vapor lines shall be repaired within five days after identification.
- f. All loading operations performed at this emissions unit shall employ submerged or bottom fill.
- g. The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.
- h. There shall be no leaks in the delivery vessel pressure/vacuum relief valves and hatch covers.
- i. The permittee shall not permit condensate to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

c) Operational Restrictions

- (1) The annual throughput rate of petroleum condensate liquid shall not exceed 630,000 gallons per year, based upon a rolling, 12-month summation of the condensate throughput rates.
- (2) The vapor balance system shall be kept in good working order and shall be used at all times during the loading of condensate into tank trucks.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. the throughput of condensate for each month, in gallons; and
 - b. the rolling, 12-month summation of the condensate throughput, in gallons.
- (2) The permittee shall maintain a log of the downtime for the vapor balance system when this emissions unit is in operation.
- (3) While condensate is being loaded, the permittee shall monitor the vapor balance system for leaks. If vapor leaks are detected, the permittee shall maintain a record of the following information:
 - a. the date the leak was detected;
 - b. the findings of the inspection for the leak, which shall indicate the location, nature, and severity of the leak;
 - c. the leak detection method;
 - d. the corrective action(s) taken to repair each leak and the date of final repair;
 - e. the reasons for any repair interval exceeding 5 calendar days (from the time of detection to the date of final repair) for each leak equal to or greater than one hundred per cent of the lower explosive limit as propane, as determined under paragraph (K) of OAC rule 3745-21-10; and
 - f. the inspector's name and signature.

These records shall be retained and accessible for a period of 5 years.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:



- i. 1.30 tons VOCs as a rolling, 12-month summation; and
- ii. 630,000 gallons condensate throughput as a rolling, 12-month summation.
- b. the probable cause of each deviation (excursion);
- c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
- d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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.
 - (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
 - (4) The permittee shall submit deviation (excursion) reports that identify each day that condensate is transferred via the loading rack and the vapor balance system was not in operation. Each report shall be submitted within 30 days after the deviation occurs.
 - (5) The permittee shall submit deviation (excursion) reports that identify each day when a leak is detected in the vapor balance system or condensate transfer hoses other than from disconnection. Each report shall be submitted within 30 days after the deviation occurs.
 - (6) Any leaks in vapor or liquid lines that are not repaired within 5 days after identification (in accordance with d)(3)) shall be reported to the Ohio EPA Northeast District office within 30 days after the repair is completed.
- f) Testing Requirements
- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

VOC emissions shall not exceed 1.30 tons as a rolling, 12-month summation.

Applicable Compliance Method:

VOC emissions shall be based on multiplying a loading loss factor (L*) by the rolling, 12-month summation of the condensate throughput, in tons, divided by 2000.

The loading loss factor was derived using AP-42, Section 5.2, "Loading Loss Equation".

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

where:

L = loading loss, pounds per 1000 gallons loaded (Q);

S = saturation factor, 0.6 for submerged fill;

P = vapor pressure of liquid loaded, pounds per square inch absolute;

M = molecular weight of vapor;

T = temperature of bulk liquid (°R);

MW = 66;

P @ 49.7°F = 4.2412;

Submerged Fill Factor = 0.6; and

Temperature = 508.3 °R.

g) Miscellaneous Requirements

(1) None.



2. P001, DEHY-1

Operations, Property and/or Equipment Description:

Natural gas glycol dehydration system including a contact tower, flash tank separator with partial flow vented as fuel to the reboiler burner and the remaining flow vented to the condensate storage tank, and a glycol dehydration unit reboiler with still vent emissions vented through a condenser to a flare. (The reboiler burner is exempt from permitting per OAC rule 3745-31-03(A)(1)(a))

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

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

a. b)(1)e and d)(4).

(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. b)(1)a, b)(2)a, b)(2)c, c)(1), d)(1) – d)(3), e)(1), f)(1)a, and f)(1)b.

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(D) (Synthetic minor to avoid Title V and major MACT permitting), ORC 3704.03(T); Volatile organic compound (VOC) emissions shall not exceed 10.32 tons as a rolling, 12-month summation. Hazardous air pollutant (HAP) emissions shall not exceed 0.63 ton as a rolling, 12-month summation. See b)(2)a, b)(2)c and b)(2)d. Row b: 40 CFR Part 63, Subpart HH, National Emission Standards for HAP from Oil and Natural Gas Production Facilities, 40 CFR 63.760(b)(2); Compliance with the applicable portions of 40 CFR Part 63, Subpart HH. Any final amendments to this rule will supersede any previous Subpart HH requirement(s) in this permit.



Table with 3 columns: Reference, Code, and Description. Row c: 40 CFR 63.764(e), Exemption from control requirements. Row d: 40 CFR 63.1 - 63.15, General Provisions. Row e: ORC 3704.03(F)(4)(d), See d)(4).

(2) Additional Terms and Conditions

- a. Dehydrator flash tank off-gases that are not used as fuel in the reboiler shall be directed to the condensate storage tank's vapor recovery unit or flare.
b. The glycol dehydration unit is exempt from the control requirements of §63.764(d) because the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram/year, with federally enforceable controls in place.
c. Maintenance of the temperature of the exhaust gases from the condenser and maintenance of the flare used to control VOC and HAPs will assure compliance with the rolling, 12-month summations. Additional monthly record keeping is not required since the annual limits are based on the emissions unit's potential to emit (at a throughput of 35 mmscf of natural gas/day and 98% destruction efficiency). See emissions unit P002 for flare requirements.
d. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P002 for flare requirements.

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records for the condenser:
 - a. continuously monitor and record the temperature of the exit of the condenser; and
 - b. record all periods of time when the condenser is not operating correctly to control the emissions from the dehydration still vent.
- (2) The permittee shall maintain records of the annual facility natural gas or hydrocarbon liquid throughput for each year, in accordance with 40 CFR 63.760(a)(1)(ii).
- (3) The permittee shall maintain the following records for the actual average emissions of benzene per year from the glycol dehydration unit process vent in accordance with 63.772(b)(2), determined either uncontrolled or with federally enforceable controls in place:
 - a. The permittee shall determine actual average benzene emissions using the model GRI-GLY Calc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLY Calc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI-95/0368.1); or
 - b. The permittee shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in 63.772(a)(1)(i) or (ii), or an alternative method according to 63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.
- (4) Modeling to demonstrate compliance with, the "Toxic Air Contaminant Statute", ORC 3704.03(F)(4)(b), was not necessary because the emissions unit's maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745-114-01, will be less than 1.0 ton per year. OAC Chapter 3745-31 requires a permittee to apply for and obtain a new or modified FEPTIO 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 FEPTIO.

*The composition of the gas being processed may vary due to the nature of the industry. The company will sample the gas semiannually to perform a detailed gas analysis in order to determine if the composition has changed such that it will result in an increase in emissions of any toxic air contaminant.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. 10.32 tons VOC as a rolling, 12-month summation; and
 - ii. 0.63 ton HAP as a rolling, 12-month summation.
 - b. all periods of time (start time and date, and end time and date) when the continuous temperature monitoring device that continuously monitors and records condenser vapor outlet temperature is not working and process gas is being vented to the condenser;
 - c. the probable cause of each deviation (excursion);
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - e. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

These quarterly reports shall be submitted by April 30, July 31, October 31, and January 31, and shall cover the records for the previous calendar quarters.

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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. The annual PER shall include the actual annual average emissions of benzene, along with an identification of the method used to demonstrate compliance, and the annual facility natural gas or hydrocarbon liquid throughput for each year as per 40 CFR 63.760(a)
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions shall not exceed 10.32 tons as a rolling, 12-month summation.

Applicable Compliance Method:

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

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

See emissions unit P002 for testing requirements.

b. Emission Limitation:

HAP emissions shall not exceed 0.63 ton as a rolling, 12-month summation.

Applicable Compliance Method:

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

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

c. Emission Limitation:

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

Applicable Compliance Method:

Compliance shall be demonstrated by the design and operation specifications detailed in 40 CFR 63.11(b). See emissions unit P002 for additional flare requirements.

g) Miscellaneous Requirements

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



3. P002, FLARE-1

Operations, Property and/or Equipment Description:

7.178 mmBtu/hr enclosed flare (controlling the dehydration unit condenser and condensate storage tank emissions when the VRU is down)

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Rows include OAC rule 3745-31-05(A)(3), OAC rule 3745-31-05(A)(3)(a)(ii), ORC 3704.03(T), 40 CFR Part 63, Subpart HH, and 40 CFR 63.1 - 63.15.

(2) Additional Terms and Conditions

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

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

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

c) Operational Restrictions

- (1) The flare shall be operated with a flame present at all times when gases are vented to it.
- (2) There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (3) An automatic flame ignition system shall be installed.
- (4) If using a pilot flame ignition system, the presence of a pilot flame shall be monitored using a thermocouple or other equivalent device to detect the presence of a flame. A pilot flame shall be maintained at all times in the flare's pilot light burner. If the pilot flame goes out and does not relight, then an alarm shall sound.
- (5) If using an electric arc ignition system, the arcing of the electric arc ignition system shall pulse continually and a device shall be installed and used to continuously monitor the electric arc ignition system.
- (6) Any flare, auto ignition system, and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall:

- a. continuously monitor and record the presence of the flame;
- b. record all periods during which the automatic flare ignition system (pilot flame or electronic arc ignition system) was not working; and
- c. record all periods during which there was gas being vented to the flare but the flare was not lit.

e) Reporting Requirements

- (1) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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.
- (2) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (3) As part of the annual PER, this facility shall submit a report describing all periods of time when the pilot flame or electronic arc ignition system is not working and process gas is being vented to it. The reports shall include the date, time, and duration of each such period.

f) Testing Requirements

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

a. Emission Limitation:

NO_x emissions shall not exceed 0.49 lb/hr and 2.14 tpy.

Applicable Compliance Method:

The hourly emission rate specified above was established by multiplying the emission factor from AP-42, Table 13.5-1 (revised 1/95), of 0.068 lbNO_x/mmBtu by the maximum heat input rate of 7.178 mmBtu/hr.

The tpy emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (0.49 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.



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

b. Emission Limitation:

CO emissions shall not exceed 11.63 tons per rolling, 12-month period.

Applicable Compliance Method:

The emission rate specified above was established by multiplying the emission factor from AP-42, Table 13.5-1 (revised 1/95), of 0.37 lb CO/mmBtu by the maximum heat input rate of 7.178 mmBtu/hr. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton.

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

c. Emission Limitation:

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

Applicable Compliance Method:

Compliance with the visible particulate emission limitation shall be determined in accordance with U.S. EPA Method 22 in Appendix A of 40 CFR Part 60. The heat content, flowrate, and exit velocity shall be determined in accordance with 40 CFR 63.11(b).

g) Miscellaneous Requirements

- (1) None.



4. P801, FUG

Operations, Property and/or Equipment Description:

Fugitive emissions from components

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.

Table with 2 columns: Applicable Rules/Requirements, Applicable Emissions Limitations/Control Measures. Row a: OAC rule 3745-31-05(A)(3), as effective 11/30/01; Fugitive emissions of volatile organic compounds (VOC) shall not exceed 1.69 tons per year... See b)(2)a, c)(1) and d)(1). Row b: OAC rule 3745-31-05(A)(3)(a)(ii), as effective 12/01/06; See b)(2)b.

(2) Additional Terms and Conditions

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

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

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

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

c) **Operational Restrictions**

- (1) When a leak is detected, a weatherproof identification tag with the equipment identification number and the date detected shall be attached to the leaking equipment, valve, or seal. A record of the date the leak was first detected, the date of any attempted repair, and the date of final repair shall be entered into a log maintained for this purpose. Repair of a leak shall be attempted as soon as possible after it is detected.

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

(1) **Leak Detection and Repair Program**

- a. The permittee shall develop and implement a leak detection and repair program designed to monitor and repair leaks from ancillary equipment and compressors covered by this permit. This leak detection and repair program shall include the following elements:
- i. An initial and then annual inspection of the ancillary and associated equipment and compressors shall be conducted to determine if a leak exists. Leaks shall be determined through the use of an analyzer meeting U.S. EPA Method 21, 40 CFR Part 60, Appendix A.
 - ii. The analyzer shall be operated and maintained following the instrument manufacturer's operation and maintenance instructions.
 - iii. A leak shall be determined if the instrument reading is equal to or greater than 10,000 ppm total VOC or the "leak detected" instrument reading required per any applicable rule.
 - iv. Documentation that includes the following:
 - (a) The date the inspection was conducted;
 - (b) The name of the employee conducting the leak check;
 - (c) The identification of any component that was determined to be leaking; and



- (d) The date the component was repaired and determined to no longer be leaking.
b. The records associated with the leak detection and repair program shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

e) Reporting Requirements

- (1) 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. It is recommended that the PER is submitted electronically through the Ohio EPA's "e-Business Center: Air Services" although PERs can be submitted via U.S. postal service or can be hand delivered.

f) Testing Requirements

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

a. Emission Limitation:

Fugitive emissions of VOC shall not exceed 1.69 tons per year.

Applicable Compliance Method:

The annual VOC limitation is the estimated potential-to-emit based upon the maximum number of components and type of service (gas/vapor and light liquid) expected at the natural gas gathering site. The maximum number of components at the time of application was the following:

- In Gas/Vapor Service: Connectors = 130
Valves = 50
Relief Valves = 8
In Light Liquid Service: Valves = 30
Flanges = 30
Pump Seals = 2

The appropriate emissions factors from U.S. EPA's "Protocol for Equipment Leak Emission Estimates", Table 2-4, for Oil and Gas production Operations (a conservative estimate), shall be used to demonstrate compliance with the rolling, 12-month limit. The facility's potential emissions from ancillary and associated equipment shall be documented from the summation of the following calculations:



Component Type # of components x emission factor x % VOC* = lb VOC/hr

In Gas/Vapor Service

Number of connectors x 0.000441 lb/hr x 22.1158% VOC = lb VOC/hr

Number of valves x 0.00992 lb/hr x 22.1158% VOC = lb VOC/hr

Number of flanges x 0.00086 lb/hr x 22.1158% VOC = lb VOC/hr

Number of compressor seals x 0.01940 lb/hr x 22.1158% VOC = lb VOC/hr

Number of relief valves x 0.01940 lb/hr x 22.1158% VOC = lb VOC/hr

Number of high bleed pneumatic controllers x 0.0194 lb/hr x 22.1158% VOC = lb VOC/hr

In Light Liquid Service

Number of connectors x 0.000463 lb/hr x 100% VOC = lb VOC/hr

Number of valves x 0.00551 lb/hr x 100% VOC = lb VOC/hr

Number of flanges x 0.00024 lb/hr x 100% VOC = lb VOC/hr

Number of pump seals x 0.0287 lb/hr x 100% VOC = lb VOC/hr

Number of relief valves x 0.01653 lb/hr x 100% VOC = lb VOC/hr

Number of high bleed pneumatic controllers x 0.01653 lb/hr x 100% VOC = lb VOC/hr

The total summation of VOC emissions per hour shall be multiplied by 8760 hours per year and divided by 2000 pounds to calculate the estimated rolling ton per year fugitive VOC emissions for the demonstration of compliance.

* The % VOC for Gas/Vapor service was based on the highest percent VOC in the gas analysis submitted by the facility.

g) Miscellaneous Requirements

- (1) None.



5. T001, TK-1

Operations, Property and/or Equipment Description:

400-bbl condensate storage tank equipped with a vapor recovery unit and flare (P002)

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. b)(1)a, b)(2)b, c)(1) – c)(3), d)(1), d)(2), e)(1), and f)(1)a.

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.

Table with 2 columns: Applicable Rules/Requirements and Applicable Emissions Limitations/Control Measures. Rows include OAC rule 3745-31-05(D), ORC 3704.03(T), 40 CFR Part 60, Subpart Kb, and OAC rule 3745-21-09(L)(1).

(2) Additional Terms and Conditions

a. This emission unit is exempt from the control requirements of 40 CFR 60.110(b) because it is a vessel with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer.

b. Maintenance of the flare used to control VOC will assure compliance with the rolling, 12-month summation. See emissions unit P002 for flare requirements.

c) Operational Restrictions

- (1) The maximum annual throughput of petroleum liquid shall not exceed 630,000 gallons per year based upon a rolling, 12-month summation.
- (2) All of the emissions from the storage tank shall be captured by a vapor recovery unit (VRU) or flare.
- (3) During all periods of downtime of the VRU, a backup flare shall be utilized to control emissions that is designed and operated as required in emissions unit P002.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of all periods of downtime for the VRU.
- (2) The permittee shall maintain monthly records of the following information:
 - a. the throughput of petroleum liquid for each month, in gallons; and
 - b. the rolling, 12-month summation of the petroleum liquid throughput, in gallons.

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - i. 3.58 tons VOC as a rolling, 12-month summation; and
 - ii. 630,000 gallons petroleum liquid throughput/year based on a rolling, 12-month summation.
 - b. any period of time (start time and date, and end time and date) when the emissions unit was in operation and the process emissions were not vented to the vapor recovery unit or flare;
 - c. the probable cause of each deviation (excursion);
 - d. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - e. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted (postmarked) each year by the thirty-first of January (covering October to December), the thirtieth of April (covering January to



March), the thirty-first of July (covering April to June), and the thirty-first of October (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services 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.
- (3) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.

f) Testing Requirements

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

- a. Emission Limitation:

VOC emissions shall not exceed 3.58 tons as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; either the TANKS software program or other process simulation programs such as, but not limited to, HYSYS or ProMax, to calculate flash losses; the Gas Research Institute's simulation program GLY Calc version 4 or equivalent to calculate flash tank off-gas emissions; and an assumed destruction efficiency of 98% for the flare.

g) Miscellaneous Requirements

- (1) None.