



11/17/2014

Certified Mail

Mr. James Roberts
Leesville Cryogenic Gas Processing Plant
10 East Main Street
Salineville, OH 43945

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

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL AND OPERATE

Facility ID: 0210032004
Permit Number: P0116848
Permit Type: Initial Installation
County: Carroll

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, Northeast District Office at (330)425-9171 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager
Permit Issuance and Data Management Section, DAPC

Cc: Ohio EPA-NEDO



FINAL

**Division of Air Pollution Control
Permit-to-Install and Operate
for
Leesville Cryogenic Gas Processing Plant**

Facility ID:	0210032004
Permit Number:	P0116848
Permit Type:	Initial Installation
Issued:	11/17/2014
Effective:	11/17/2014
Expiration:	11/17/2024



Division of Air Pollution Control
Permit-to-Install and Operate
for
Leesville Cryogenic Gas Processing Plant

Table of Contents

Authorization	1
A. Standard Terms and Conditions	4
1. What does this permit-to-install and operate ("PTIO") allow me to do?.....	5
2. Who is responsible for complying with this permit?	5
3. What records must I keep under this permit?	5
4. What are my permit fees and when do I pay them?.....	5
5. When does my PTIO expire, and when do I need to submit my renewal application?	5
6. What happens to this permit if my project is delayed or I do not install or modify my source?	6
7. What reports must I submit under this permit?	6
8. If I am required to obtain a Title V operating permit in the future, what happens to the operating provisions and PER obligations under this permit?	6
9. What are my obligations when I perform scheduled maintenance on air pollution control equipment? ...	6
10. Do I have to report malfunctions of emissions units or air pollution control equipment? If so, how must I report?	7
11. Can Ohio EPA or my local air agency inspect the facility where the emission unit(s) is/are located?	7
12. What happens if one or more emissions units operated under this permit is/are shut down permanently?	7
13. Can I transfer this permit to a new owner or operator?.....	7
14. Does compliance with this permit constitute compliance with OAC rule 3745-15-07, "air pollution nuisance"?	8
15. What happens if a portion of this permit is determined to be invalid?	8
B. Facility-Wide Terms and Conditions.....	9
C. Emissions Unit Terms and Conditions	12
1. P001, FL-242	13
2. P002, L-501A/B-C-8200-A1/2/3, C-161/2/3A/B, C510/C511.....	24
3. P003, V-260	26
4. P004, V-403.....	31
5. P005, Gas Chromatograph Sample Loop.....	34
6. P006, FL-405	36
7. P007, L-501A/B-C-8200-A1/2/3, C510/C511.....	45
8. P008, R-900, L-260/L-261.....	49
9. P009, FL-591	53



10. P801, Fugitive Emissions 63

11. T001, T-261 72

12. Emissions Unit Group -Stabilized Condensate Tanks: T002,T003,T004,T005,T006,T007,T008,T009 78



Authorization

Facility ID: 0210032004
Application Number(s): A0050328, A0051368, A0051477, A0052047
Permit Number: P0116848
Permit Description: Initial installation of a 450 mmscf/day natural gas cryogenic processing plant
Permit Type: Initial Installation
Permit Fee: \$3,350.00
Issue Date: 11/17/2014
Effective Date: 11/17/2014
Expiration Date: 11/17/2024
Permit Evaluation Report (PER) Annual Date: Oct 1 - Sept 30, Due Nov 15

This document constitutes issuance to:

Leesville Cryogenic Gas Processing Plant
8349 Azalea Rd
Leesville, OH 44621

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

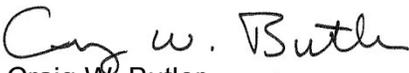
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, 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


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0116848
Permit Description: Initial installation of a 450 mmscf/day natural gas cryogenic processing plant

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

Emissions Unit ID:	P001
Company Equipment ID:	FL-242
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	L-159A-C-8200, L-501A/B/C-C-8200-A1/2/3, C-161A, C510/C511
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	V-260
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	V-403
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Gas Chromatograph Sample Loop
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	FL-405
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P007
Company Equipment ID:	L-159A-C-8200, L-501A/B/C-C-8200-A1/2/3, C-161A, C510/C511
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	R-130/131, R-900, L-260/L-261
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	FL-591
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P801
Company Equipment ID:	Fugitive Emissions
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T001



Company Equipment ID: T-261
Superseded Permit Number:
General Permit Category and Type: Not Applicable

Group Name: Stabilizer Condensate Tanks

Emissions Unit ID:	T002
Company Equipment ID:	T-520
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T003
Company Equipment ID:	T-521
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T004
Company Equipment ID:	T-522
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T005
Company Equipment ID:	T-523
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T006
Company Equipment ID:	T-524
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T007
Company Equipment ID:	T-525
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T008
Company Equipment ID:	T-526
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T009
Company Equipment ID:	T-527
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Leesville Cryogenic Gas Processing Plant
Permit Number: P0116848
Facility ID: 0210032004
Effective Date: 11/17/2014

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
Leesville Cryogenic Gas Processing Plant
Permit Number: P0116848
Facility ID: 0210032004
Effective Date: 11/17/2014

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) 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 units contained in this permit are subject to 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution: P001, P003, P005, P006, P007, P009 P801, and T001. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
3. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984: T002-T009. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
4. 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 facility. PTE calculations should include sources such as:
 - a) Cryo Unit Heat Medium Heaters 1 -2, B001-B002 (Permit-by-rule – PBR ID PBR11754),
 - b) Mol Sieve Regen Gas Heaters 1-2, B003-B004 (exempt per OAC rule 3745-31-03(A)(1)(a)),
 - c) Stabilizer Heat Medium Heater, B005 (exempt per OAC rule 3745-31-03(A)(1)(a)),
 - d) Condensate Truck Loading Loss from Loading Arm Disconnections, J001 (de minimis per OAC rule 3745-15-05),
 - e) NGL Truck Loading Loss from Loading Arm Disconnections, J002 (de minimis per OAC rule 3745-15-05),
 - f) Open drain water tank, T010 (exempt per OAC rule 3745-31-03(l)(i)),
 - g) Slop oil tank, T011 (exempt per OAC rule 3745-31-03(l)(iv)),



- h) Skim oil tank, T012 (de minimis per OAC rule 3745-15-05),
- i) Methanol storage tank, T013 (exempt per OAC rule 3745-31-03(l)(iv)),
- j) Lube oil storage tank, T014 (exempt per OAC rule 3745-31-03(l)(iv)),
- k) Water supply tank, T015 (exempt per OAC rule 3745-31-03(l)(i)),
- l) Sump tanks 1 and 2 (skid drains), T016 and T017 (exempt per OAC rule 3745-31-03(l)(iv)),
- m) TEG storage tank, T018 (de minimis per OAC rule 3745-15-05).



Final Permit-to-Install and Operate
Leesville Cryogenic Gas Processing Plant
Permit Number: P0116848
Facility ID: 0210032004
Effective Date: 11/17/2014

C. Emissions Unit Terms and Conditions



1. P001, FL-242

Operations, Property and/or Equipment Description:

HP Flare - Non-assisted open flare with a heat input capacity of 12.10mmBtu/hr during normal operation used to control the following emission sources: Closed Drain Drum (P003), Compressor Maintenance Blowdown (P002), and Gas Chromatograph Sample Loop Return (P005). In an emergency situation the flare could have as much as 9,900 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)	Nitrogen oxides (NO _x) emissions shall not exceed 0.30 tonper month averaged over a twelve-month, rolling period. Volatile organic compound (VOC) emissions shall not exceed 0.36 tonper month averaged over a twelve-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO _x and VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)b.
c.	ORC 3704.03(T)	<p>Carbon monoxide (CO) emissions shall not exceed 1.63 tons per month averaged over a twelve-month, rolling period.</p> <p>The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60 Subpart OOOO.</p> <p>See c)(2).</p>
d.	<p>40 CFR Part 60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430)</p> <p>[In accordance with 40 CFR 60.5400, this emissions unit consists of a flare used to control leaks from pressure relief devices in a process unit in an onshore natural gas processing plant.]</p> <p>[In accordance with 40 CFR 60.5365, this emissions unit includes a flare used to control a storage vessel affected facility.]</p> <p>40 CFR Part 60, Subpart VVa: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for which construction, reconstruction, or modification commenced after November 7, 2006. (40 CFR 60.18, 60.5400, 60.482-1a(a), (b), and (d), 60.482-10a)</p>	<p>The facility is subject to the applicable requirements of Subpart VVa for equipment leaks of VOC at a facility which commenced construction after August 23, 2011 per 60.5400 of Subpart OOOO.</p> <p>Following the compliance date of April 15, 2015 for Group 1 storage vessels, and April 15, 2014 or 60 days after startup (whichever is later) for Group 2 storage vessels, each storage vessel with VOC emissions calculated to exceed 6 tons per year shall reduce VOC emissions by 95.0%.</p> <p>See b)(2)c. and b)(2)d., c)(5), c)(6), d)(6), d)(7), e)(4) and e)(5).</p>
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	OAC rule 3745-17-11(B)	See b)(2)f.



(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

Since the BAT design control efficiency of 98% allows the permittee to calculate potential emissions below Title V thresholds, if in the future U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP, then the permittee shall recalculate potential emissions using a rule-based control efficiency and apply for a permit modification if necessary.

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. No later than October 15, 2012 or upon startup, the permittee shall demonstrate compliance with the applicable requirements of 40 CFR 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in 60.5401.
- d. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5).
- e. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- f. The uncontrolled mass rate of PE from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.
- (2) All collected gas shall be vented to an open flare designed and operated as follows:
- a. The flare shall be operated with at least a 98% destruction efficiency.
- b. An automatic flame ignition system shall be installed.
- c. 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 alert the operator. The net heating value of the gas being combusted and the actual exit velocity shall be calculated as required in 40 CFR 60.18.

- d. 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.
 - e. 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.
 - f. An inlet gas flow rate meter shall be installed and used to continuously monitor the flow.
 - g. The flare shall operate at no more than a 12-month rolling average 12.10mmBtu/hr heat input at all times except for times when a malfunction occurs such that excess gas must be safely disposed of through the flare.
- (3) The permittee shall install and operate a flare for the control of VOC emissions whenever the emissions units are in operation and shall maintain the flare in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (4) In the event the flare is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the flare shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (5) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.5400(a), 60.482-10a(m) and 60.18(e)	Operate closed vent systems and control devices used to comply with provisions of 40 CFR 60.482-10a at all times when emissions may be vented to them.
60.5400(a), 60.482-10a(d) and 60.18(c)(1)	Design and operate the flare with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
60.5400(a), 60.482-10a(d) and 60.18(c)(2)	Operate the flare with a flame present at all times.
60.5400(a), 60.482-10a(d), 60.18(c)(3), 60.18(c)(3)(ii), 60.18(c)(4), 60.18(c)(5), 60.18(f)(3) through (6)	Adhere to the minimum net heating value of gas specified in 60.18(c)(3)(ii) and maximum tip velocity specifications in 60.18(c)(4) and (5). Calculate the net heating value of the gas as specified in 60.18(f)(3). Calculate exit velocities as specified in 60.18(f)(4) through (6).*
60.5400(a) and 60.482-	Repair all leaks, as indicated by an instrument reading



10a(g)	greater than 500 ppmv above background or by visual inspections, from the closed vent systems as soon as practicable. First attempt at repair must be made no later than 5 calendar days after detection, and repair must be completed no later than 15 calendar days after detection, except as provided by rule (e.g., delay of repair, unsafe to inspect, difficult to inspect).
60.5400(a) and 60.482-10a(h)	Allowances for delay of repair for leaks in closed vent systems.

*The permittee may choose to comply with any alternative standards provided in 40 CFR Part 60, Subparts A, OOOO or VVa.

- (6) For the storage vessel affected facilities, the permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subparts A and OOOO, including the following sections:

60.5395(a), 60.5410(h)(2), and 60.5415(e)(3)	Operate the flare to achieve a 95% reduction of emissions of VOC from each storage vessel emitting more than 6 TPY. Emissions are to be determined per 60.5365(e).
60.5412(a)(3) and 60.5413	Design and operation requirements for a flare.
60.5412(a)(3), 60.5413(a)(1) and 60.18(c)(1)	Design and operate the flare with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
60.5412(a)(3), 60.5413(a)(1) and 60.18(c)(2)	Operate the flare with a flame present at all times.
60.5412(a)(3), 60.5413(a)(1), 60.18(c)(3), 60.18(c)(3)(ii), 60.18(c)(4), 60.18(c)(5), and 60.18(f)(3) through (6)	Adhere to the minimum net heating value of gas specified in 60.18(c)(3)(ii) and maximum tip velocity specifications in 60.18(c)(4) and (5). Calculate the net heating value of the gas as specified in 60.18(f)(3). Calculate exit velocities as specified in 60.18(f)(4) through (6).
60.5413(a)(1)	Performance test exemption if flare is designed and operated in accordance with section 60.18(b). Perform a visible emissions test using Method 22 at 40 CFR Part 60, Appendix A-7.
60.5417(d)	Install, calibrate, operate and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the flare's pilot flame.

d) Monitoring and/or Recordkeeping Requirements

- (1) For each day during which the permittee burns a fuel other than natural gas as defined in 40 CFR 63.761, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit, except during an emergency.



- (2) The permittee shall properly install, operate, and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- (3) The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design and the requirements contained in this permit.
- (4) The permittee shall:
 - a. Continuously monitor and record the presence of the pilot flame.
 - b. Record all periods during which the automatic flare ignition system (pilot flame or electronic arc ignition system) was not working.
 - c. Record all periods during which there was gas being vented to the flare but the flare was not lit.
 - d. Record gas flow rate at the inlet to the flare at least once every hour, in lbs/hour.
 - e. Record a summation of the gas flow rate at the inlet to the flare monthly, in lbs/month.
 - f. Record a 12-month, rolling summation of the gas flow rate at the inlet to the flare monthly, in lbs/month.
 - g. Sample the gas stream monthly and record the VOC weight percentage.
- (5) The permittee shall maintain a record of all periods of time (date and number of hours) when, due to emergency or upset condition, the flare is burning collected gases such that the 12-month rolling average heat input is greater than 12.10mmBtu/hr, along with a description of the emergency and/or the reason that the flare was used at a 12-month rolling average heat input greater than 12.10mmBtu/hr. The 12-month rolling average heat input shall be calculated from the monitored flow rate and a maximum heating value of 0.023 mmBtu/lb.
- (6) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.5400(a), 60.482-10a(e) and 60.18(d)	Monitor the control device to ensure it is operated and maintained in conformance with its design.
60.5400(a) and 60.18(f)(2)	Monitor the presence of the flare pilot flame using a thermocouple or any other equivalent device.
60.5400(a), 60.482-10a(f)(1) and (2), and 60.485a(b)	Inspect each closed vent system, except as provided in 60.482-10a(i)-(k). If the vapor collection system or closed vent system is constructed of hard-piping, an initial inspection shall be performed according to



	60.485a(b) (i.e., Method 21), and annual visual inspections shall be performed for visible, audible, or olfactory indications of leaks. If the vapor collection system or closed vent system is constructed of ductwork, initial and annual inspections shall be performed according to the procedures of 60.485a(b).
60.5400(a) and 60.482-10a(l)(1)	Maintain required records for parts of the closed vent system that are designated as unsafe to inspect.
60.5400(a) and 60.482-10a(l)(2)	Maintain required records for parts of the closed vent system that are designated as difficult to inspect.
60.5400(a) and 60.482-10a(l)(3)	Maintain required records for leaks and repairs of closed vent systems as specified in 60.486a(c).
60.5400(a) and 60.482-10a(l)(4) and (5)	Maintain required records for inspections.
60.5400(e) and 60.486a(d)	Maintain required records for the design requirements for closed vent systems and control devices.
60.5400(e) and 60.486a(e)	Maintain required log.
60.5421(b)	Maintain required records for pressure relief devices.

- (7) For the storage vessel affected facilities, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subparts A and OOOO, including the following sections:

60.5417(d)(1)(iii) and 60.5415(e)(3)(i)(B)	Install, calibrate, operate, and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
60.5417(c)(1)	Detect and record the presence of a flare flame at least once every hour.
60.5417(c)(2)	Install, calibrate, operate, and maintain the continuous monitoring systems in accordance with a site specific monitoring plan including the information required by rule.
60.5417(c)(3) and (4)	Conduct a continuous parameter monitoring systems equipment performance check, system accuracy audit, or other audit procedure as specified in the site-specific monitoring plan at least once every 12 months. Conduct performance evaluations of the continuous parameter monitoring systems as specified in the site-



	specific monitoring plan.
60.5417(d)(1)(iii)	Install, calibrate, operate, and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
60.5417(g)(4)	Deviations for the flare occur when the monitoring data are not available for at least 75 percent of the operating hours in a day.
60.5420(c)	The applicable records identified in 40 CFR 60.5420(c) and 40 CFR 60.7(f) must be maintained either onsite or at the nearest local field office for at least 5 years.
60.5420(c)(5)(iii)	Maintain records of deviations.

- (8) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (9) The permittee shall conduct periodic inspections of the flare to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

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 perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

- (10) The permittee shall document each inspection (periodic and annual) of the flare and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of 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.

- (11) The permittee shall maintain records that document any time periods when the flare was not in service when the emissions units 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 PER shall cover a reporting period of no more than 12 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, except during an emergency. Each report shall be submitted within 30 days after the deviation occurs.
- (4) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.7(a)	Initial notification of the date construction of the affected facility commenced and the actual date of initial startup of the affected facility.
60.5400(e) and 60.487a(a)	Submit semiannual reports beginning six months after the initial startup date.
60.5400(e) and 60.487a(b) and (c)	<p>Include all required information in the initial semiannual report.</p> <p>Include all required information in each subsequent semiannual report.</p>

- (5) For the storage vessel affected facilities, the permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart OOOO, per the following sections:

60.5420(b)(6)(iii)	Submit records of deviations.
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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 Limitations:

NO_x emissions shall not exceed 0.30 tonper month averaged over a twelve-month, rolling 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 0.068 lbsNO_x/mmBtu by the maximum rolling 12-month average heat input rate. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton and 12 months per year.

If required, compliance with the 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. Emissions Limitations:

CO emissions shall not exceed 1.63 tonsper month averaged over a twelve-month, rolling 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 lbs CO/mmBtu by the maximum rolling 12-month average heat input rate. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton and 12 months per year.

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

c. Emissions Limitations:

VOC emissions shall not exceed 0.36 tonper month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance with the VOC emissions limitation shall be based upon the following calculation using the inputs provided in the permittee's application and the recordkeeping requirements in d)(4):



$$\text{VOC (tons/mo.)} = (\text{Inlet gas flow rate}) \times (\text{VOC weight percentage}) \times (1 - \text{flare destruction efficiency}) \times (\text{ton}/2000 \text{ lbs})$$

Where:

Inlet gas flow rate = lbs/mo., including purge and pilot gas;
VOC weight percentage = percentage of VOC in the inlet gas stream (based on monthly sample analysis in d)(4)); and
Flare destruction efficiency = 98%.

If required, compliance with the VOC 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 Methods 18, 25, or 25A.

d. Emissions Limitation:

The flare shall be designed and operated with no visible emissions, except for a total of five minutes during any two consecutive hours.

Applicable Compliance Method:

Compliance with the visible emissions limitation shall be determined in accordance with U.S. EPA Method 22 in Appendix A of 40 CFR Part 60.

g) Miscellaneous Requirements

- (1) Any amendment to Part 60, Subpart OOOO shall supersede the compliance limitations and/or options contained in this permit.



2. P002, L-501A/B-C-8200-A1/2/3, C-161/2/3A/B, C510/C511

Operations, Property and/or Equipment Description:

Residue, Refrigeration and Stabilizer compressor maintenance blowdowns controlled by the 12.10 mmBtu/hr HP Flare (P001).

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.	ORC 3704.03(T)	Install a flare that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a.

(2) Additional Terms and Conditions

a. The emissions from the Residue, Refrigeration and Stabilizer compressor maintenance blowdowns shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P001 for flare requirements.

c) Operational Restrictions

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



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records on a monthly basis:
 - a. Number of each type of maintenance blowdown event;
 - b. Total estimated volume of gas emitted from each type of maintenance blowdown event; and
 - c. Total estimated volume of gas emitted from all maintenance blowdown events.

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:

Install an open flare that is designed to meet 98% control efficiency of VOC emissions.

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P001.

g) Miscellaneous Requirements

- (1) None.



3. P003, V-260

Operations, Property and/or Equipment Description:

Closed Drain Drum controlled by the 12.10 mmBtu/hr HP Flare (P001).

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)	Install an open flare that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a. and b)(2)d. The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart OOOO.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	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 potential to emit is less than 10 tons/year. See b)(2)b.
c.	OAC rule 3745-21-09(L)(2)(b)	See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) [In accordance with 40 CFR 60.5365, this emissions unit includes a storage vessel affected facility.]	Following the compliance date of April 15, 2014, or 30 days after startup, each Group 2 storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to equal or exceed 6 tons per year, shall reduce VOC emissions by 95.0%. See c)(1), d)(1) and e)(3).
e.	40 CFR Part 60.1 through 60.19	The General Provisions that apply are specified in Table 3 of 40 CFR Part 60, Subpart OOOO.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

Since the BAT design control efficiency of 98% allows the permittee to calculate potential emissions below Title V thresholds, if in the future U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP, then the permittee shall recalculate potential emissions using a rule-based control efficiency and apply for a permit modification if necessary.

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. A fixed roof tank meeting one of the following criteria is exempt from installing an internal floating roof or other control device and is not subject to the requirements identified in OAC rule 3745-21-09(L):
- i. a fixed roof tank with a capacity of less than 40,000 gallons; or
 - ii. a fixed roof tank used to store crude oil and condensate prior to lease custody transfer and with a capacity of less than 422,000 gallons; or
 - iii. a fixed roof tank that stores a petroleum liquid with a true vapor pressure less than or equal to 1.52 pounds per square inch absolute.

If not meeting one of these exemptions the storage vessel shall be installed to comply with the control requirements of OAC rule 3745-21-09(L).



d. The emissions from the Closed Drain Drum shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P001 for flare requirements.

c) Operational Restrictions

(1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5395(a), (c), and (d), 60.5410(h) and 60.5415(e)(3)	Operate the flare to achieve a 95% reduction of emissions of VOC from each Group 2 storage vessel emitting more than 6 TPY. Emissions are to be determined per 60.5365(e).
60.5395(c) and (e) and 60.5411(b)	Equip the storage tanks with a cover connected through a closed vent system to the flare. The cover and all openings in the cover must form a continuous barrier over the entire surface area of the liquid in the storage vessel and must be secured in a closed, sealed position whenever material is stored in the storage vessels except as provided by 60.5411(b)(2).
60.5411(b)(3)	Each storage vessel thief hatch shall be weighted and properly sealed.
60.5412(d)(3)	Operate control device used to comply with the provisions of 60.5395 at all times when emissions may be vented to it.
60.5411(c)(2)	Design and operate the closed vent system with no detectable emissions.
60.5411(c)(3)	Any valves associated with the closed vent system that are capable of diverting all or a portion of the emissions away from the flare must be equipped with bypass flow monitors or must be secured in the non-diverting position using a car-seal or a lock-and-key type configuration. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to this requirement.
60.5416(c)(4), (5), (6), and (7)	Repair all leaks detected from the closed vent system or cover as soon as practicable. First attempt at repair must be made no later than 5 calendar days after detection, and repair must be completed no later than 30 calendar days after detection, except as provided by rule (e.g., delay of repair, unsafe to inspect, difficult to inspect).

*The permittee may choose to comply with any alternative standards provided in 40 CFR Part 60, Subparts A and OOOO.

d) Monitoring and/or Recordkeeping Requirements

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



60.5416(c)(1)	Conduct an inspection of each closed vent system at least once every calendar month. Conduct olfactory, visual and auditory inspections for defects that could result in air emissions. Monthly inspections must be separated by at least 14 calendar days.
60.5416(c)(2)	Conduct an inspection of each cover at least once every calendar month. Conduct olfactory, visual and auditory inspections for defects that could result in air emissions. Monthly inspections must be separated by at least 14 calendar days.
60.5416(c)(3)	Either set the flow indicator to sound an alarm at the inlet to the bypass device when the stream is being diverted away from the control device, or visually inspect all bypass valves secured in the non-diverting position at least once a month to verify that valve remains in the non-diverting position.
60.5420(c)(5)(ii)	Maintain required records for each VOC emissions determination including identification of the model or calculation methodology.
60.5420(c)(5)(iii)	Maintain required records for deviations.
60.5416(c)(1), 60.5420(c)(5)(i) and 60.5420(c)(6)	Maintain required records for inspections of closed vent systems.
60.5416(c)(2), 60.5420(c)(5)(i) and 60.5420(c)(7)	Maintain required records for inspections of storage vessel covers.
60.5416(c)(3), 60.5420(c)(5)(i) and 60.5420(c)(8)	Maintain required records for inspections of bypass valves.
60.5420(c)(5)(v)	Maintain required records of the identification and location of each storage vessel affected facility.
60.5420(c)(5)(i) and 60.5416(c)(6)(ii)	Maintain a written plan for unsafe to inspect parts.
60.5420(c)(5)(i) and 60.5416(c)(7)(ii)	Maintain a written plan for difficult to inspect parts.
60.5421(b)	Maintain required records for pressure relief devices.

- (2) The permittee shall record the annual throughput of each tank in gallons per year. The permittee shall keep records of U.S. EPA TANKS software program and/or other



process simulation program calculations used to demonstrate annual storage tank and process vent emissions. These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5420(a)(1)	Initial notifications required in 60.7(a)(1), (3) and (4) are not required for storage vessels.
60.5410(h)(4) and 60.5420(b)	Submit the required information for storage vessels in the initial annual report within 90 days of the end of the initial compliance period and in the subsequent reports due the same date each year as the initial annual report.
60.5422	Submit the required information for pressure relief devices.

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:
 Install an open flare that is designed to meet 98% control efficiency of VOC emissions
 - Applicable Compliance Method:
 Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P001.

g) Miscellaneous Requirements

- (1) Any amendment to 40 CFR Part 60, Subpart OOOO shall supersede the compliance limitations and/or options contained in this permit.



4. P004, V-403

Operations, Property and/or Equipment Description:

Cold Drain Drum controlled by the Cold Flare (P006).

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)	Install an open flare that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a. and b)(2)d.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	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 potential to emit is less than 10 tons/year. See b)(2)b.
c.	OAC rule 3745-21-09(L)(2)(b)	See b)(2)c.



(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

Since the BAT design control efficiency of 98% allows the permittee to calculate potential emissions below Title V thresholds, if in the future U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP, then the permittee shall recalculate potential emissions using a rule-based control efficiency and apply for a permit modification if necessary.

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.

- c. A fixed roof tank meeting one of the following criteria is exempt from installing an internal floating roof or other control device and is not subject to the requirements identified in OAC rule 3745-21-09(L):

- i. a fixed roof tank with a capacity of less than 40,000 gallons; or
- ii. a fixed roof tank used to store crude oil and condensate prior to lease custody transfer and with a capacity of less than 422,000 gallons; or
- iii. a fixed roof tank that stores a petroleum liquid with a true vapor pressure less than or equal to 1.52 pounds per square inch absolute.

If not meeting one of these exemptions the storage vessel shall be installed to comply with the control requirements of OAC rule 3745-21-09(L).

- d. The emissions from the Cold Drain Drum shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P006 for flare requirements.

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the annual throughput of each tank in gallons per year. The permittee shall keep records of U.S. EPA TANKS software program and/or other process simulation program calculations used to demonstrate annual storage tank and process vent emissions. These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.



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. Emission Limitation:

Install an open flare that is designed to meet 98% control efficiency of VOC emissions

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P006.

g) Miscellaneous Requirements

- (1) None.



5. P005, Gas Chromatograph Sample Loop

Operations, Property and/or Equipment Description:

Venting of the Gas Chromatograph sample loop return lines controlled by the 12.10 mmBtu/hr HP Flare (P001).

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.	ORC 3704.03(T)	Install an open flare that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a.

(2) Additional Terms and Conditions

a. The emissions from the venting of the Gas Chromatograph sample loop return lines shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P001 for flare requirements.

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:

Install an open flare that is designed to meet 98% control efficiency of VOC emissions.

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P001.
- g) Miscellaneous Requirements
 - (1) None.



6. P006, FL-405

Operations, Property and/or Equipment Description:

Cold Flare - Non-assisted open flare with a heat input capacity of 4.35 mmBtu/hr during normal operations used to control the following emission sources: Cold Drain Drum (P004) and HP Receiver and NGL Launcher (parts of P008). In an emergency situation the flare could have as much as 8,900 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)	Nitrogen oxides (NO _x) emissions shall not exceed 0.11 tonper month averaged over a twelve-month, rolling period. Volatile organic compound (VOC) emissions shall not exceed 0.04 tonper month averaged over a twelve-month, rolling period. Carbon monoxide (CO) emissions shall not exceed 0.59 tonper month averaged over a twelve-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT) requirements under OAC rule 3745-31-



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b.
c.	40 CFR Part 60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) [In accordance with 40 CFR 60.5400, this emissions unit consists of a flare used to control leaks from pressure relief devices in a process unit in an onshore natural gas processing plant.] 40 CFR Part 60, Subpart VVa: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for which construction, reconstruction, or modification commenced after November 7, 2006. (40 CFR 60.18, 60.5400, 60.482-1a(a), (b), and (d), 60.482-10a)	The facility is subject to the applicable requirements of Subpart VVa for equipment leaks of VOC at a facility which commenced construction after August 23, 2011 per 60.5400 of Subpart OOOO. See b(2)c. and d., c)(5), d)(9) and e)(4).
d.	OAC rule 3745-17-07(A)	See b)(2)e.
e.	OAC rule 3745-17-11(B)	See b)(2)f.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

Since the BAT design control efficiency of 98% allows the permittee to calculate potential emissions below Title V thresholds, if in the future U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP, then the permittee shall recalculate potential emissions using a rule-based control efficiency and apply for a permit modification if necessary.



- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
 - c. No later than October 15, 2012 or upon startup, the permittee shall demonstrate compliance with the applicable requirements of 40 CFR 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in 60.5401.
 - d. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5).
 - e. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
 - f. The uncontrolled mass rate of PE from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.
 - (2) All collected gas shall be vented to an open flare designed and operated as follows:
 - a. The flare shall be operated with at least a 98% destruction efficiency.
 - b. An automatic flame ignition system shall be installed.
 - c. 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. The net heating value of the gas being combusted and the actual exit velocity shall be calculated as required in 40 CFR 60.18.
 - d. 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.
 - e. 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.
 - f. An inlet gas flow rate meter shall be installed and used to continuously monitor the flow.



- g. The flare shall operate at no more than a 12-month rolling average 4.35 mmBtu/hr heat input at all times except for times when a malfunction occurs such that excess gas must be safely disposed of through the flare.
- (3) The permittee shall install and operate a flare for the control of VOC emissions whenever the emissions units are in operation and shall maintain the flare in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
 - (4) In the event the flare is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the flare shall be expeditiously repaired or otherwise returned to these documented operating conditions.
 - (5) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.5400(a), 60.482-10a(m) and 60.18(e)	Operate closed vent systems and control devices used to comply with provisions of 40 CFR 60.482-10a at all times when emissions may be vented to them.
60.5400(a), 60.482-10a(d) and 60.18(c)(1)	Design and operate the flare with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
60.5400(a), 60.482-10a(d) and 60.18(c)(2)	Operate the flare with a flame present at all times.
60.5400(a), 60.482-10a(d), 60.18(c)(3), 60.18(c)(3)(ii), 60.18(c)(4), 60.18(c)(5), 60.18(f)(3) through (6)	Adhere to the minimum net heating value of gas specified in 60.18(c)(3)ii) and maximum tip velocity specifications in 60.18(c)(4) and (5). Calculate the net heating value of the gas as specified in 60.18(f)(3). Calculate exit velocities as specified in 60.18(f)(4) through (6).*
60.5400(a) and 60.482-10a(g)	Repair all leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, from the closed vent systems as soon as practicable. First attempt at repair must be made no later than 5 calendar days after detection, and repair must be completed no later than 15 calendar days after detection, except as provided by rule (e.g., delay of repair, unsafe to inspect, difficult to inspect).
60.5400(a) and 60.482-10a(h)	Allowances for delay of repair for leaks in closed vent systems.

*The permittee may choose to comply with any alternative standards provided in 40 CFR Part 60, Subparts A, OOOO or VVa.



d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- (2) The permittee shall monitor the flare to ensure that it is operated and maintained in conformance with its design and the requirements contained in this permit.
- (3) The permittee shall:
 - a. Continuously monitor and record the presence of the pilot flame.
 - b. Record all periods during which the automatic flare ignition system (pilot flame or electronic arc ignition system) was not working.
 - c. Record all periods during which there was gas being vented to the flare but the flare was not lit.
 - d. Record gas flow rate at the inlet to the flare at least once every hour, in lbs/hour.
 - e. Record a summation of the gas flow rate at the inlet to the flare monthly, in lbs/month.
 - f. Record a 12-month, rolling summation of the gas flow rate at the inlet to the flare monthly, in lbs/month.
 - g. Sample the gas stream monthly and record the VOC weight percentage.
- (4) The permittee shall maintain a record of all periods of time (date and number of hours) when, due to emergency or upset condition, the flare is burning collected gases such that the 12-month rolling average heat input is greater than 4.35 mmBtu/hr, along with a description of the emergency and/or the reason that the flare was used at a 12-month rolling average heat input greater than 4.35mmBtu/hr. The 12-month rolling average heat input shall be calculated from the monitored flow rate and a maximum heating value of 0.023 mmBtu/lb.
- (5) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (6) The permittee shall conduct periodic inspections of the flare to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.



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 perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

- (7) The permittee shall document each inspection (periodic and annual) of the flare and shall maintain the following information:
- a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of 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.

- (8) The permittee shall maintain records that document any time periods when the flare was not in service when the emissions units 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.
- (9) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.5400(a), 60.482-10a(e) and 60.18(d)	Monitor the control device to ensure it is operated and maintained in conformance with its design.
60.5400(a) and 60.18(f)(2)	Monitor the presence of the flare pilot flame using a thermocouple or any other equivalent device.
60.5400(a), 60.482-10a(f)(1) and (2), and 60.485a(b)	Inspect each closed vent system, except as provided in 60.482-10a(i)-(k). If the vapor collection system or closed vent system is constructed of hard-piping, an initial inspection shall be performed according to 60.485a(b) (i.e., Method 21), and annual visual inspections shall be performed for visible, audible, or olfactory indications of leaks. If the vapor collection system or closed vent system is constructed of ductwork, initial and annual inspections shall be performed according to the procedures of 60.485a(b).



60.5400(a) and 60.482-10a(l)(1)	Maintain required records for parts of the closed vent system that are designated as unsafe to inspect.
60.5400(a) and 60.482-10a(l)(2)	Maintain required records for parts of the closed vent system that are designated as difficult to inspect.
60.5400(a) and 60.482-10a(l)(3)	Maintain required records for leaks and repairs of closed vent systems as specified in 60.486a(c).
60.5400(a) and 60.482-10a(l)(4) and (5)	Maintain required records for inspections.
60.5400(e) and 60.486a(d)	Maintain required records for the design requirements for closed vent systems and control devices.
60.5400(e) and 60.486a(e)	Maintain required log.
60.5421(b)	Maintain required records for pressure relief devices.

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.
- (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, except during an emergency. Each report shall be submitted within 30 days after the deviation occurs.
- (4) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.7(a)	Initial notification of the date construction of the affected facility commenced and the actual date of initial startup of the affected facility.
60.5400(e) and 60.487a(a)	Submit semiannual reports beginning six months after the initial startup date.
60.5400(e) and 60.487a(b) and (c)	Include all required information in the initial semiannual report.



	Include all required information in each subsequent semiannual report.
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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 Limitations:

NO_x emissions shall not exceed 0.11 tonper month averaged over a twelve-month, rolling 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 0.068 lbsNO_x/mmBtu by the maximum rolling 12-month average heat input rate. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton and 12 months per year.

If required, compliance with the 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. Emissions Limitations:

CO emissions shall not exceed 0.59 tonper month averaged over a twelve-month, rolling 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 lbs CO/mmBtu by the maximum rolling 12-month average heat input rate. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton and 12 months per year.

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

c. Emissions Limitations:

VOC emissions shall not exceed 0.04 tonper month averaged over a twelve-month, rolling period.



Applicable Compliance Method:

Compliance with the VOC emissions limitation shall be based upon the following calculation using the inputs provided in the permittee's application and the recordkeeping requirements in d)(3):

$$\text{VOC (tons/mo.)} = (\text{Inlet gas flow rate}) \times (\text{VOC weight percentage}) \times (1 - \text{flare destruction efficiency}) \times (\text{ton}/2000 \text{ lbs})$$

Where:

Inlet gas flow rate = lbs/mo., including purge and pilot gas;

VOC weight percentage = percentage of VOC in the inlet gas stream (based on monthly sample analysis in d)(4)); and

Flare destruction efficiency = 98%.

If required, compliance with the VOC 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 Methods 18, 25, or 25A.

d. Emissions Limitation:

The flare shall be designed and operated with no visible emissions, except for a total of five minutes during any two consecutive hours.

Applicable Compliance Method:

Compliance with the visible emissions limitation shall be determined in accordance with U.S. EPA Method 22 in Appendix A of 40 CFR Part 60.

g) Miscellaneous Requirements

(1) None.



7. P007, L-501A/B-C-8200-A1/2/3, C510/C511

Operations, Property and/or Equipment Description:

Emissions from Residue and Stabilizer compressor packing leakage. The Stabilizer compressor packing leakage is vented to the Tank Flare (P009). The Residue compressor packing leakage 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.	ORC 3704.03(T)	Fugitive volatile organic compound (VOC) emissions from the residue compressor packing leakage shall not exceed 0.08 tonper month averaged over a twelve-month, rolling period. Install an enclosed flare on the inlet and stabilizer compressor packing leakage that is designed to meet 98% control efficiency of VOC emissions. The requirements of this rule also include compliance with the applicable requirements of 40 CFR Part 60, Subpart OOOO. See b)(2)a.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	40 CFR Part 60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360 - 60.5430) [In accordance with 40 CFR 60.5365, this emissions unit includes a reciprocating compressor affected facility.]	The facility is subject to the provisions of Subpart OOOO for reciprocating compressors which commenced construction after August 23, 2011. See c)(1), d)(1) and e)(3).
c.	40 CFR Part 60.1 through 60.19	The General Provisions that apply are specified in Table 3 of 40 CFR Part 60, Subpart OOOO.

(2) Additional Terms and Conditions

- a. The emissions from the stabilizer compressor packing leakage shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P009 for flare requirements.

c) Operational Restrictions

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

60.5385(a) and 60.5415(c)(3)	Replace the reciprocating compressor rod packing prior to completing 26,000 hours of operation since startup or the last rod packing replacement, or within 36 months of startup or the last rod packing replacement.
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d) Monitoring and/or Recordkeeping Requirements

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

60.5410(c)(1)	During the initial compliance period, continuously monitor the number of hours of operation or track the number of months since the last rod packing replacement for reciprocating compressors.
60.5415(c)(1)	For continuous compliance, continuously monitor the number of hours of operation or track the number of months since initial startup or since the date of the most recent compressor



	rod packing replacement, whichever is later.
60.5410(c)(4), 60.5415(c)(2), and 60.5420(c)(3)(i)	Maintain records of the cumulative number of hours of operation or number of months since initial startup or the previous replacement of the reciprocating compressor rod packing, whichever is later.
60.5410(c)(4), 60.5415(c)(2), and 60.5420(c)(3)(ii)	Maintain records of the date and time of each reciprocating compressor rod packing replacement.
60.5410(c)(4), 60.5415(c)(2), and 60.5420(c)(3)(iii)	Maintain records of deviations in cases where the reciprocating compressor was not operated in compliance with the 60.5385.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5410(f), 60.5420(a), 60.7(a)	Initial notification requirements.
60.5410(c)(3), 60.5415(c)(2), and 60.5420(b)(1) and (4)	Submit initial annual report within 90 days after the end of the initial compliance period. Subsequent annual reports are due on the same date each year as the initial annual report.

f) Testing Requirements

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

a. Emission Limitation:

Fugitive VOC emissions from the residue compressor packing leakage shall not exceed 0.08 tonper month averaged over a twelve-month, rolling period.



Applicable Compliance Method:

Compliance with the monthly VOC emissions limitation shall be based upon the following calculation using the inputs provided in the permittee's application:

For the Residue Compressors:

$$\text{VOC (lbs/hr)} = (\text{Packing leakage rate}) \times (\text{Gas density}) \times (\text{Mass percent VOC}) \times (\text{\# of compressors})$$

where:

Packing leakage rate = 43.82 scf/hr;

Gas density = 0.049 lb/scf;

Mass percent VOC = 0.02; and

of residue compressors = 6.

The total monthly emissions shall be calculated by multiplying the VOC lbs/hr by 8,760 hours/year and 1 ton/2,000 lbs, then dividing by 12 months/year.

b. Emission Limitation:

Install an enclosed flare on the stabilizer compressor packing leakage that is designed to meet 98% control efficiency of VOC emissions.

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P009.

g) Miscellaneous Requirements

- (1) Any amendment to 40 CFR Part 60, Subpart OOOO shall supersede the compliance limitations and/or options contained in this permit.



8. P008, R-900, L-260/L-261

Operations, Property and/or Equipment Description:

HP Pig Receiver and NGL and Residue Pig Launchers

- 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)	Fugitive volatile organic compound (VOC) emissions from the pig launchers and receiver shall not exceed 0.09 tonper month averaged over a twelve-month, rolling period. Install an open flare (P006) on the HP pig receiver and NGL pig launcher that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	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 potential to emit is less than 10 tons/year.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		See b)(2)b.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).

Since the BAT design control efficiency of 98% allows the permittee to calculate potential emissions below Title V thresholds, if in the future U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP, then the permittee shall recalculate potential emissions using a rule-based control efficiency and apply for a permit modification if necessary.

- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. Within 60 days of startup of the emissions unit, the permittee shall develop and maintain a written operating manual for pig launching and recovery. The manual shall include, at a minimum, procedures for minimizing the duration and frequency of the pigging activities, and a training program for the operators performing the activities.

c) Operational Restrictions

- (1) The permittee shall minimize the emissions of VOC from the pigging activities to the extent practicable.
- (2) Prior to opening the barrels for the receivers and launcher, the permittee shall reduce the pressure through the flare header.
- (3) Access openings to the receivers and launcher shall be kept closed at all times, except when a pig is being placed into or removed from the receiver or launcher, or during active maintenance operations.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall record the number of each type of pigging barrel opening event (i.e., each HP Pig Receiver barrel opening event, NGL Pig Launcher barrel opening event and Residue Pig Launcher barrel opening event) on a monthly basis.



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. Emission Limitation:

Fugitive VOC emissions from the pig launchers and receiver shall not exceed 0.09 tonper month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

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

VOC (ton/mo., averaged over a twelve-month, rolling period) =
{[(VOC estimate for each HP Pig Receiver barrel opening event X # of HP Pig Receiver barrel opening events per year) + (VOC estimate for each NGL Pig Launcher barrel opening event X # of NGL Pig Launcher barrel opening events per year) + (VOC estimate for each Residue Pig Launcher barrel opening event X # of Residue Pig Launcher barrel opening events per year)] X 1 ton/2,000 pounds}/12 months

where:

VOC estimate for each HP Pig Receiver barrel opening event = 10.93 lbs/event.

VOC estimate for each NGL Pig Launcher barrel opening event = 16.70 lbs/event.

VOC estimate for each Residue Pig Launcher barrel opening event = 10.00 lbs/event.

b. Emission Limitation:

Install an open flare (P006) that is designed to meet 98% control efficiency of VOC emissions.



Final Permit-to-Install and Operate
Leesville Cryogenic Gas Processing Plant
Permit Number: P0116848
Facility ID: 0210032004
Effective Date: 11/17/2014

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P006.

- g) Miscellaneous Requirements
 - (1) None.



9. P009, FL-591

Operations, Property and/or Equipment Description:

Tank Flare - Air-assisted enclosed flare with a heat input capacity of 8.083 mmBtu/hr during normal operations used to control the following emission sources: Closed Drain Water Tank (T001), Skim Oil Tank (T012), Methanol Storage Tank (T013), Stabilizer Condensate Tanks (T002-T009) and Compressor Packing Leakage from Stabilizer Compressors (P007). In an emergency situation the flare could have as much as 54.82 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)	Nitrogen oxides (NO _x) emissions shall not exceed 0.20 tonper month averaged over a twelve-month, rolling period. Volatile organic compound (VOC) emissions shall not exceed 0.37 tonper month averaged over a twelve-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	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 potential to emit is less



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		than 10 tons/year. See b)(2)b.
c.	ORC 3704.03(T)	Carbon monoxide (CO) emissions shall not exceed 1.09 tons per month averaged over a twelve-month, rolling period. The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60 Subpart OOOO. See c)(2).
d.	40 CFR Part 60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) [In accordance with 40 CFR 60.5400, this emissions unit consists of a flare used to control leaks from pressure relief devices in a process unit in an onshore natural gas processing plant.] [In accordance with 40 CFR 60.5365, this emissions unit includes a storage vessel affected facility.] 40 CFR Part 60, Subpart VVa: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for which construction, reconstruction, or modification commenced after November 7, 2006. (40 CFR 60.18, 60.5400, 60.482-1a(a), (b), and (d), 60.482-10a)	The facility is subject to the applicable requirements of Subpart VVa for equipment leaks of VOC at a facility which commenced construction after August 23, 2011 per 60.5400 of Subpart OOOO. See b)(2)c. and d., c)(5), c)(6), d)(9), d)(10), e)(4) and e)(5). Following the compliance date of April 15, 2014, or 30 days after startup, each Group 2 storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to equal or exceed 6 tons per year, shall reduce VOC emissions by 95.0%.
e.	OAC rule 3745-17-07(A)	See b)(2)e.
f.	OAC rule 3745-17-11(B)	See b)(2)f.



(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. No later than October 15, 2012 or upon startup, the permittee shall demonstrate compliance with the applicable requirements of 40 CFR 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in 60.5401.
- d. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5).
- e. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- f. The uncontrolled mass rate of PE from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas as defined in 40 CFR 63.761 in this emissions unit, except during an emergency.
- (2) All collected gas shall be vented to an enclosed combustion device designed and operated as follows:
 - a. The enclosed combustion device shall be operated with at least a 98% destruction efficiency.
 - b. The enclosed combustion device shall be maintained in a leak free condition.
 - c. The permittee shall install and operate a continuous burning pilot flame.
 - d. Operate the enclosed combustion device with no visible emissions, except for periods not to exceed a total of one minute during any 15 minute period.
 - e. An inlet gas flow rate meter shall be installed and used to continuously monitor the flow.



f. The enclosed combustion device shall operate at no more than a 12-month rolling average 8.083mmBtu/hr heat input at all times except for times when a malfunction occurs such that excess gas must be safely disposed of through the unit.

- (3) The permittee shall install and operate an enclosed combustion device for the control of VOC emissions whenever the emissions units are in operation and shall maintain the unit in accordance with the manufacturer’s recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (4) In the event the enclosed combustion device is not operating in accordance with the manufacturer’s recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the unit shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (5) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.5400(a) and 60.482-10a(m)	Operate closed vent systems and control devices used to comply with provisions of 40 CFR 60.482-10a at all times when emissions may be vented to them.
60.5400(a) and 60.482-10a(c)	Design and operate the enclosed combustion device to reduce the VOC emissions with an efficiency of 95 percent or greater, or to an exit concentration of 20 ppmv, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent or to provide a minimum residence time of 0.75 seconds at a minimum temperature of 816°C.
60.5400(a) and 60.482-10a(g)	Repair all leaks, as indicated by an instrument reading greater than 500 ppmv above background or by visual inspections, from the closed vent systems as soon as practicable. First attempt at repair must be made no later than 5 calendar days after detection, and repair must be completed no later than 15 calendar days after detection, except as provided by rule (e.g., delay of repair, unsafe to inspect, difficult to inspect).
60.5400(a) and 60.482-10a(h)	Allowances for delay of repair for leaks in closed vent systems.

*The permittee may choose to comply with any alternative standards provided in 40 CFR Part 60, Subparts A, OOOO or VVa.

- (6) For the storage vessel affected facilities, the permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subparts A and OOOO, including the following sections:

60.5395(a), 60.5410(h)(2), and 60.5415(e)(3)	Operate the enclosed combustion device to achieve a 95% reduction of emissions of VOC from each storage
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	vessel emitting more than 6 TPY. Emissions are to be determined per 60.5365(e).
60.5412(d)	Design the enclosed combustion device to reduce the mass content of VOC emissions by 95.0 percent or greater.
60.5412(d)(1)(i)	Ensure each enclosed combustion device is maintained in a leak free condition.
60.5412(d)(1)(ii)	Install and operate a continuous burning pilot flame on the enclosed combustion device.
60.5412(d)(1)(iii)	Operate the enclosed combustion device with no visible emissions, except for periods not to exceed a total of one minute during any 15 minute period. Perform a visible emissions test monthly using Method 22 at 40 CFR Part 60, Appendix A-7.
60.5412(d)(3)	Operate control devices at all times when emissions may be vented to them.
60.5413(a)(7)	Performance test exemption if model is tested by the manufacturer.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a device to continuously monitor the pilot flame when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manuals.
- (2) The permittee shall monitor the enclosed combustion device to ensure that it is operated and maintained in conformance with its design and the requirements contained in this permit.
- (3) The permittee shall:
 - a. Continuously monitor and record the presence of the pilot flame.
 - b. Record gas flow rate at the inlet to the enclosed combustion device at least once every hour, in lbs/hour.
 - c. Record a summation of the gas flow rate at the inlet to the enclosed combustion device monthly, in lbs/month.
 - d. Record a 12-month, rolling summation of the gas flow rate at the inlet to the enclosed combustion device monthly, in lbs/month.
 - e. Sample the gas stream monthly and record the VOC weight percentage.
- (4) The permittee shall maintain a record of all periods of time (date and number of hours) when, due to emergency or upset condition, the enclosed combustion device is burning collected gases such that the 12-month rolling average heat input is greater than 8.083 mmBtu/hr, along with a description of the emergency and/or the reason that the



enclosed combustion device was used at a 12-month rolling average heat input greater than 8.083mmBtu/hr. The 12-month rolling average heat input shall be calculated from the monitored flow rate and a maximum heating value of 0.023 mmBtu/lb.

- (5) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the enclosed combustion device, 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.
- (6) The permittee shall conduct periodic inspections of the enclosed combustion device 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.

In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the enclosed combustion device and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.

- (7) The permittee shall document each inspection (periodic and annual) of the enclosed combustion device 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.

- (8) The permittee shall maintain records that document any time periods when the enclosed combustion device was not in service when the emissions units were in operation, as well as, a record of all operations during which the enclosed combustion device 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.
- (9) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:



60.5400(a) and 60.482-10a(e)	Monitor the control device to ensure it is operated and maintained in conformance with its design.
60.5400(a), 60.482-10a(f)(1) and (2), and 60.485a(b)	Inspect each closed vent system, except as provided in 60.482-10a(i)-(k). If the vapor collection system or closed vent system is constructed of hard-piping, an initial inspection shall be performed according to 60.485a(b) (i.e., Method 21), and annual visual inspections shall be performed for visible, audible, or olfactory indications of leaks. If the vapor collection system or closed vent system is constructed of ductwork, initial and annual inspections shall be performed according to the procedures of 60.485a(b).
60.5400(a) and 60.482-10a(l)(1)	Maintain required records for parts of the closed vent system that are designated as unsafe to inspect.
60.5400(a) and 60.482-10a(l)(2)	Maintain required records for parts of the closed vent system that are designated as difficult to inspect.
60.5400(a) and 60.482-10a(l)(3)	Maintain required records for leaks and repairs of closed vent systems as specified in 60.486a(c).
60.5400(a) and 60.482-10a(l)(4) and (5)	Maintain required records for inspections.
60.5400(e) and 60.486a(d)	Maintain required records for the design requirements for closed vent systems and control devices.
60.5400(e) and 60.486a(e)	Maintain required log.
60.5421(b)	Maintain required records for pressure relief devices.

- (10) For the storage vessel affected facilities, the permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subparts A and OOOO, including the following sections:

60.5417(d)(1)(i)	Install, calibrate, operate, and maintain a temperature monitoring device equipped with a continuous recorder.
60.5417(c)(1)	Detect and record the temperature at least once every hour.
60.5417(c)(2)	Install, calibrate, operate, and maintain the continuous monitoring systems in accordance with a site specific monitoring plan including the information required by rule.



60.5417(c)(3) and (4)	Conduct a continuous parameter monitoring systems equipment performance check, system accuracy audit, or other audit procedure as specified in the site-specific monitoring plan at least once every 12 months. Conduct performance evaluations of the continuous parameter monitoring systems as specified in the site-specific monitoring plan.
60.5417(g)(4)	Deviations occur when the monitoring data are not available for at least 75 percent of the operating hours in a day.
60.5420(c)	The applicable records identified in 40 CFR 60.5420(c) and 40 CFR 60.7(f) must be maintained either onsite or at the nearest local field office for at least 5 years.
60.5420(c)(5)(iii)	Maintain records of deviations.

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.
- (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, except during an emergency. Each report shall be submitted within 30 days after the deviation occurs.
- (4) For the pressure relief devices and any other equipment covered under the Subparts listed below, the permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts A, OOOO and VVa, including the following sections:

60.7(a)	Initial notification of the date construction of the affected facility commenced and the actual date of initial startup of the affected facility.
60.5400(e) and 60.487a(a)	Submit semiannual reports beginning six months after the initial startup date.
60.5400(e) and 60.487a(b) and (c)	Include all required information in the initial semiannual report. Include all required information in each subsequent



	semiannual report.
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- (5) For the storage vessel affected facilities, the permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart OOOO, per the following sections:

60.5420(b)(6)(iii)	Submit records of deviations.
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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 Limitations:

NO_x emissions shall not exceed 0.20 tonper month averaged over a twelve-month, rolling 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 0.068 lbsNO_x/mmBtu by the maximum rolling 12-month average heat input rate. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton and 12 months per year.

If required, compliance with the 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. Emissions Limitations:

CO emissions shall not exceed 1.09 tonsper month averaged over a twelve-month, rolling 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 lbs CO/mmBtu by the maximum rolling 12-month average heat input rate. This number was then multiplied by the maximum annual hours of operation (8,760 hours), and then divided by 2,000 lbs per ton and 12 months per year.



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

c. Emissions Limitations:

VOC emissions shall not exceed 0.37 tonper month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance with the VOC emissions limitation shall be based upon the following calculation using the inputs provided in the permittee's application and the recordkeeping requirements in d)(3):

$$\text{VOC (tons/mo.)} = (\text{Inlet gas flow rate}) \times (\text{VOC weight percentage}) \times (1 - \text{control destruction efficiency}) \times (\text{ton}/2000 \text{ lbs})$$

Where:

Inlet gas flow rate = lbs/mo., including purge and pilot gas;

VOC weight percentage = percentage of VOC in the inlet gas stream (based on monthly sample analysis in d)(3)); and

Control destruction efficiency = 98%.

If required, compliance with the VOC 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 Methods 18, 25, or 25A.

d. Emissions Limitation:

Operate the enclosed combustion device with no visible emissions, except for periods not to exceed a total of one minute during any 15 minute period.

Applicable Compliance Method:

Compliance with the visible emissions limitation shall be determined in accordance with U.S. EPA Method 22 in Appendix A of 40 CFR Part 60.

g) Miscellaneous Requirements

- (1) Any amendment to Part 60, Subpart OOOO shall supersede the compliance limitations and/or options contained in this permit.



10. P801, Fugitive Emissions

Operations, Property and/or Equipment Description:

Fugitive VOC emissions from various equipment components, including valves, pumps, flanges, connectors, open-ended lines, compressors, drains/vents, pressure safety valves and sample points.

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.	ORC 3704.03(T)	<p>Fugitive emissions of volatile organic compounds (VOC) shall not exceed 1.09 tons per month averaged over a twelve-month, rolling period.</p> <p>The requirements of this rule include compliance with 40 CFR Part 60, Subpart OOOO.</p>
b.	<p>40 CFR Part 60, Subpart OOOO: Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360 - 60.5430)</p> <p>[In accordance with 40 CFR 60.5365, this emissions unit includes equipment associated with a</p>	<p>The facility is subject to the applicable requirements of Subpart VVa for equipment leaks of VOC at a facility which commenced construction after August 23, 2011 per 60.5400 of Subpart OOOO.</p> <p>See b)(2)a. through c., c)(5), d)(1) and e)(3).</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	liquefied natural gas unit located at an onshore natural gas processing plant.] 40 CFR Part 60, Subpart VVa: Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (SOCMI) for which construction, reconstruction, or modification commenced after November 7, 2006.	

(2) Additional Terms and Conditions

- a. In accordance with 40 CFR Part 60 Subpart OOOO, the pieces of equipment listed in the following sentence are affected facilities in a process unit in an onshore natural gas processing plant constructed after August 23, 2011. Fugitive leaks from the following equipment are covered by this permit and subject to the NSPS requirements: each pump, pressure relief device, opened valve or line, valve, and flange or other connector in VOC service.
- b. No later than October 15, 2012 or upon startup, the permittee shall demonstrate compliance with the applicable requirements of 40 CFR 60.482-1a(a), (b), and (d), 60.482-2a, and 60.482-4a through 60.482-11a, except as provided in 60.5401.
- c. Equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2a to 60.482-10a if it is identified as required in 40 CFR 60.486a(e)(5).

c) Operational Restrictions

- (1) Construction of new and reworked piping, valves, pump systems, and compressor systems shall conform to applicable American National Standards Institute (ANSI), American Petroleum Institute (API), American Society of Mechanical Engineers (ASME), or equivalent codes.
- (2) New and reworked underground process pipelines shall contain no buried valves such that fugitive emission monitoring is rendered impractical.
- (3) To the extent that good engineering practice will permit, new and reworked valves and piping connections shall be so located to be reasonably accessible for leak-checking during plant operation. Non-accessible valves shall be identified in a list to be made available upon request. The non-accessible valves may be identified by one or more of the methods described below:



- a. piping and instrumentation diagram (PID); or
 - b. a written or electronic database.
- (4) New and reworked piping connections greater than 2 inches shall be welded or flanged. Screwed connections are permissible only on piping two-inches in diameter or less. Gas or hydraulic testing of the new and reworked piping connections at no less than operating pressure shall be performed prior to returning the components to service or they shall be monitored for leaks using an approved gas monitor within 8 hours of the components being returned to service. Adjustments shall be made as necessary to obtain leak-free performance.

Compliance with the requirements of this condition does not assure compliance with requirements of NSPS or NESHAPS and does not constitute approval of alternate standards for these regulations.

- (5) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subparts OOOO and VVa, including the following sections:

60.5400(f)	Each piece of equipment is presumed to be in VOC service or wet gas service unless demonstrated otherwise.
60.5400(a) and 60.482-2a(b)(2)(ii)	Designate visual indications of liquids dripping from a pump seal as a leak, and repair the leak using the procedures in 60.482-2a(c) or by eliminating the visual indications of liquids dripping.
60.5400(a) and 60.482-2a(c)(1)	Repair detected leaks from pumps in light liquid service not later than 15 calendar days after detection, except as provided in 60.482-9a for delay of repair.
60.5400(a) and 60.482-2a(c)(2)	Attempt first repair of detected leaks from pumps in light liquid service within 5 calendar days after each leak is detected.
60.5400(a) and 60.482-2a(d)	Meet the requirements of 60.482-2a(d) for pumps equipped with a dual mechanical seal system.
60.5400(a), 60.482-2a(e) and 60.486a(e)	Meet the requirements of 60.482-2a(e) for pumps designated for no detectable emissions (less than 500 ppm above background) in lieu of 60.482-2a(a), (c) and (d).
60.5400(a), 60.482-2a(g) and 60.486a(f)(1)	Meet the requirements of 60.482-2a(g) for pumps designated as unsafe to monitor in lieu of 60.482-2a(a) and (d)(4) – (6).
60.5400(a), 60.482-4a and 60.5401(b)(3)	Repair detected leaks from pressure relief devices in gas/vapor service as soon as practicable, but not later than 15 calendar days after detection, except as provided in 60.482-9a, and attempt first repair within 5 days after each



	leak is detected.
60.5400(a) and 60.482-4a(d)	Meet the requirements of 60.482-4a(d)(2) for any pressure relief device equipped with a rupture disk upstream of the pressure relief device in lieu of 60.482-4a(a) and (b).
60.5400(a), 60.482-5a and 60.5401(c)	Sampling connection systems are exempt from the requirements of 60.482-5a.
60.5400(a) and 60.482-6a(a)(1)	Equip each open-ended valve or line with a cap, blind flange, plug or a second valve, except as provided in 60.482-1a(c) and 60.482-6a(d) and (e).
60.5400(a), 60.482-6a(a)(2) and (b) through (e)	Operate each open-ended valve or line in compliance with the requirements of 60.482-6a(a)(2) and (b) through (e).
60.5400(a), 60.482-7a(d)(1) and (2)	Repair detected leaks from valves in gas/vapor or light liquid service as soon as practicable, but not later than 15 calendar days after detection, except as provided in 60.482-9a, and attempt first repair within 5 days after each leak is detected.
60.5400(a) and 60.482-7a(e)	Use best practices in the first attempt at repair of leaks from valves in gas/vapor or light liquid service.
60.5400(a) and 60.482-7a(f)	Meet the requirements of 60.482-7a(f) for valves in gas/vapor or light liquid service designated for no detectable emissions (less than 500 ppm above background) in lieu of 60.482-7a(a).
60.5400(a) and 60.482-7a(g)	Meet the requirements of 60.482-7a(g) for valves in gas/vapor or light liquid service designated as unsafe to monitor in lieu of 60.482-7a(a).
60.5400(a) and 60.482-7a(h)	Meet the requirements of 60.482-7a(h) for valves in gas/vapor or light liquid service designated as difficult to monitor in lieu of 60.482-7(a).
60.5400(a) and 60.482-8a(c)	Repair detected leaks from pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and connectors as soon as practicable, but not later than 15 calendar days after detection, except as provided in 60.482-9a, and attempt first repair within 5 days after each leak is detected.
60.5400(a) and 60.482-8a(d)	Use best practices in the first attempt at repair of leaks from pumps and valves in heavy liquid service, pressure relief devices in light or heavy liquid service, and connectors.



60.5400(a) and 60.482-9a	Meet the requirements of 60.482-9a for delays of repair.
60.5400(a) and 60.482-10a(a) through (d) and (m)	Meet the requirements of 60.482-10a for closed vent systems and control devices.
60.5400(a) and 60.482-10a(g)	Repair detected leaks from closed vent systems and control devices as soon as practicable, but not later than 15 calendar days after detection and attempt first repair within 5 days after each leak is detected.
60.5400(a) and 60.482-10a(h)	Meet the requirements of 60.482-10a(h) for delays of repair.
60.5400(a) and 60.482-11a(d)	Repair detected leaks from connectors in gas/vapor or light liquid service as soon as practicable, but not later than 15 calendar days after detection, except as provided in 60.482-9a, and attempt first repair within 5 days after each leak is detected.
60.5400(a) and 60.482-11a(e)	Meet the requirements of 40 CFR 60.482-11a(e) for connectors that are designated as unsafe to monitor in lieu of 40 CFR part 60.482-11a(a) and (b).
60.5400(a) and 60.482-11a(f)	Meet the requirements of 40 CFR 60.482-11a(f) for connectors that are inaccessible, ceramic, or ceramic-lined in lieu of 40 CFR 60.482-11a(a) and (b).
60.5400(a) and 60.482-11a(g)	Identification requirements for connectors in gas/vapor or light liquid service.

*The permittee may choose to comply with any alternative standards provided in 40 CFR Part 60, Subparts A and OOOO.

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

- (1) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subparts OOOO and VVa, including the following sections:

60.5400(a), 60.482-2a(a)(1) and 60.485a(b)	Monitor each pump in light liquid service within 30 days after the end of the startup period and monthly thereafter to detect leaks, except as provided in 60.482-1a(c) and (f) and 60.482-2a(d), (e) and (f).
60.5400(a) and 60.482-2a(a)(2)	Visually inspect each pump in light liquid service each week for indications of liquids dripping from the pump seal, except as provided in 60.482-1a(f).



60.5400(a) and (d), 60.482-2a(b)(1) and 60.485a(b)(1)	Detect leaks from pumps in light liquid service at an instrument reading of 5,000 ppm for pumps handling polymerizing monomers or at an instrument reading of 2,000 ppm for all other pumps.
60.5400(a) and 60.482-2a(b)(2)(i)	Monitor each pump in light liquid service in accordance with 60.485a(b) within 5 days of discovery of liquids dripping from the pump seal.
60.5400(a) and 60.482-2a(h)	Alternate inspection requirements for pumps located at unmanned plant sites.
60.5400(a), 60.482-4a and 60.5401(b)(1)	Monitor each pressure relief device in gas/vapor service quarterly and within 5 days after each pressure release to detect leaks in accordance with 60.485a(b).
60.5400(a) and (d), 60.5401(b)(2), 60.482- 4a and 60.485a(b)(1)	Detect leaks from pressure relief devices in gas/vapor service at an instrument reading of 500 ppm above background.
60.5400(a) and 60.482-7a(a)	Monitor each valve in gas/vapor and light liquid service within 30 days after the end of the startup period and monthly thereafter to detect leaks, except as provided in 60.482-1a(c) and (f) and 60.482-7a(f), (g) and (h).
60.5400(a) and (d), 60.482-7a(b) and 60.485a(b)(1)	Detect leaks from valves in gas/vapor and light liquid service at an instrument reading of 500 ppm.
60.5400(a) and 60.482.7a(c)(1)(i)	Monitor each valve in gas/vapor or light liquid service for which a leak is not detected for 2 successive months during the first month of each quarter until a leak is detected.
60.5400(a) and 60.482-7a(c)(1)(ii)	Monitor assigned subgroups of valves in gas/vapor or light liquid service that are inspected during a different month during the quarter, provided each subgroup is monitored every 3 months.
60.5400(a) and 60.482-7a(c)(2)	Monitor leaking valves in gas/vapor or light liquid service monthly until a leak is not detected for 2 successive months.
60.5400(a) and 60.482-8a(a)(1) or (2)	Monitor pumps, valves and connectors in heavy liquid service and pressure relief devices in light or heavy liquid service within 5 days by the method specified in 60.485a(b) and comply with 60.482-8a(b) through (d) if visual, audible, olfactory or other detection methods indicate a potential leak, or eliminate indications of leaks within 5 calendar days of detection.
60.5400(a) and (d),	Detect leaks from pumps, valves and connectors in heavy



60.482-8a(b) and 60.485a(b)(1)	liquid service and pressure relief devices in light or heavy liquid service at an instrument reading of 10,000 ppm.
60.5400(a), 60.482-10a(e), (f), (l) and 60.485a(b)	Monitor each control device to ensure conformance with their designs and inspect each closed vent system initially and annually to detect leaks, except as provided in 60.482-10a(i) through (k).
60.5400(a) and (d), and 60.482-10a(g)	Detect leaks from closed vent systems and control devices at an instrument reading of 500 ppmv above background or by visual inspections.
60.5400(a) and 60.482-11a(a) and (b)(3)	Monitor all connectors in gas/vapor and light liquid service for leaks within 12 months of compliance date or initial startup and thereafter in accordance with 60.482-11a(b)(3) to detect leaks, except as provided in 60.482-1a(c) and 60.482-11a(e).
60.5400(a) and (d), 60.482-11a(b)(1)-(2), and 60.485a(b)(1)	Detect leaks from connectors in gas/vapor and light liquid service at an instrument reading of 500 ppm.
60.5400(a), 60.482-11a(b)(3)(iv)	Monitor leaking connectors in gas/vapor or light liquid service within 90 days after repair to confirm that the connector is no longer leaking.
60.5400(a), 60.482-11a(c)	Comply with procedures for calculating the percentage of leaking connectors in gas/vapor or light liquid service.
60.5400(d) and 60.485a(d) through (f)	Comply with procedures and sampling requirements for determining VOC service and light liquid service.
60.5400(e) and 60.5421(b)	Maintain required information for pressure relief devices.
60.5400(e) and 60.486a(b) and (c)	Maintain required information for detected leaks.
60.5400(e) and 60.486a(d)	Maintain required records for the design of the closed vent systems and control devices and period of time when they were not in operation as required.
60.5400(e) and 60.486a(e)	Maintain required records for equipment identification and records for each leak test conducted (dates and results).
60.5400(e) and 60.486a(f)	Maintain required records for valves and pumps identified as unsafe or difficult to monitor.
60.5400(e) and 60.486a(g)	Maintain records required for valves where complying with 40 CFR 60.483-2a for skip leak detection and repair.



60.5400(e) and 60.486a(h)	Maintain required information on design criteria in 60.482-2a(d)(5) and 60.482-3a(e)(2).
60.5400(e) and 60.486a(i) and (j)	Maintain records required for exemptions from the leak detection requirements, the analysis/data demonstrating that a piece of equipment is “not in VOC service” and the analysis demonstrating the design capacity of the process unit.

e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subparts OOOO and VVa, including the following sections:

60.5410(f), 60.5420(a), 60.7(a)	Initial notification of the date construction of the affected facility commenced and the actual date of initial startup of the affected facility.
60.5400(e), 60.487a(a) and (b) , 60.5420(b), and 60.5422(b)	Submit initial annual report within 90 days after the end of the initial compliance period. Subsequent annual reports are due on the same date each year as the initial annual report.
60.5400(e), 60.487a(a), (b) and (c), and 60.5422(a), (b) and (c)	Submit semiannual reports beginning six months after the initial startup date.

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 1.09 tons per month averaged over a twelve-month, rolling period.



Applicable Compliance Method:

Compliance with the monthly VOC emissions limitation shall be demonstrated by the following calculation based on the emissions factors (lb/hr/component) and LDAR monitoring control efficiencies in Table 2-4 of U.S. EPA's Protocol for Equipment Leak Emission Estimates (11/95), the guidance document entitled "Oil and Gas Production Operations" from the Texas Commission on Environmental Quality (10/00), and the recordkeeping in d)(1):

$$\text{VOC} = [(\# \text{ of valves in gas service} \times \text{gas service valve EF} \times \text{gas service valve control efficiency}) + (\# \text{ of valves in heavy oil service} \times \text{heavy oil service valve EF}) + (\# \text{ of valves in light oil service} \times \text{light oil service valve EF} \times \text{light oil service valve control efficiency}) + (\# \text{ of pumps in light oil service} \times \text{light oil service pump EF} \times \text{light oil service pump control efficiency}) + (\# \text{ of pumps in heavy oil service} \times \text{heavy oil service pump EF}) + (\# \text{ of flanges in gas service} \times \text{gas service flange EF}) + (\# \text{ of flanges in heavy oil service} \times \text{heavy oil service flange EF}) + (\# \text{ of flanges in light oil service} \times \text{light oil service EF}) + (\# \text{ of other points in gas service} \times \text{gas service other equipment EF}) + (\# \text{ of relief valves in gas service} \times \text{gas service relief valves EF})] \times 8,760 \text{ hours/year} \times 1 \text{ ton}/2,000 \text{ lbs} / (12 \text{ months/year})$$

Where:

Valve EFs = 9.945E-03 lb/hr/source for gas service, 1.86E-05 lb/hr/source for heavy oil service, and 5.525E-03 lb/hr/source for light oil service;

Pump Seal EFs = 2.866E-02 lb/hr/source for light oil service and 1.13E-03 lb/hr/source for heavy oil service;

Flange EFs = 8.6E-04 lb/hr/source for gas service, 8.6E-07 lb/hr/source for heavy oil service, and 2.43E-04 lb/hr/source for light oil service;

Relief Valve EFs = 1.94E-02 lb/hr/source for gas service;

Other* EFs = 1.94E-02 lb/hr/source for gas service; and

LDAR monitoring control efficiencies = 97% for valves in gas service and light oil service and for relief valves in gas service; 75% for pumps in light oil service, and other/compressors in gas service; and 30% for flanges in gas service, light oil service and heavy oil service.

* includes drains/vents, pressure safety valves and sample points.

g) Miscellaneous Requirements

- (1) Any amendment to Part 60, Subpart OOOO shall supersede the compliance limitations and/or options contained in this permit.



11. T001, T-261

Operations, Property and/or Equipment Description:

Closed Drain Water Tank controlled by the Tank Flare (P009).

- 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)	Install an enclosed flare that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a. The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart OOOO.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	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 potential to emit is less than 10 tons/year. See b)(2)b.
c.	OAC rule 3745-21-09(L)(2)(b)	See b)(2)c.



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
d.	40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) [In accordance with 40 CFR 60.5365, this emissions unit includes a storage vessel affected facility.]	Following the compliance date of April 15, 2014, or 30 days after startup, each Group 2 storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to equal or exceed 6 tons per year, shall reduce VOC emissions by 95.0%. See c)(1), d)(1) and e)(3).
e.	40 CFR Part 60.1 through 60.19	The General Provisions that apply are specified in Table 3 of 40 CFR Part 60, Subpart OOOO.

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. A fixed roof tank meeting one of the following criteria is exempt from installing an internal floating roof or other control device and is not subject to the requirements identified in OAC rule 3745-21-09(L):
 - i. a fixed roof tank with a capacity of less than 40,000 gallons; or
 - ii. a fixed roof tank used to store crude oil and condensate prior to lease custody transfer and with a capacity of less than 422,000 gallons; or
 - iii. a fixed roof tank that stores a petroleum liquid with a true vapor pressure less than or equal to 1.52 pounds per square inch absolute.

If not meeting one of these exemptions the storage vessel shall be installed to comply with the control requirements of OAC rule 3745-21-09(L).

c) Operational Restrictions

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

60.5395(a), (c), and (d), 60.5410(h) and	Operate the flare to achieve a 95% reduction of emissions of VOC from each Group 2 storage vessel
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60.5415(e)(3)	emitting more than 6 TPY. Emissions are to be determined per 60.5365(e).
60.5395(c) and (e) and 60.5411(b)	Equip the storage tanks with a cover connected through a closed vent system to the flare. The cover and all openings in the cover must form a continuous barrier over the entire surface area of the liquid in the storage vessel and must be secured in a closed, sealed position whenever material is stored in the storage vessels except as provided by 60.5411(b)(2).
60.5411(b)(3)	Each storage vessel thief hatch shall be weighted and properly sealed.
60.5412(d)(3)	Operate control device used to comply with the provisions of 60.5395 at all times when emissions may be vented to it.
60.5411(c)(2)	Design and operate the closed vent system with no detectable emissions.
60.5411(c)(3)	Any valves associated with the closed vent system that are capable of diverting all or a portion of the emissions away from the flare must be equipped with bypass flow monitors or must be secured in the non-diverting position using a car-seal or a lock-and-key type configuration. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to this requirement.
60.5412(a)(3) and 60.5413(a)(1)	Design and operate the flare in accordance with 60.18(b). Use Method 22 to determine visible emissions.
60.5412(a)(3), 60.5413(a)(1) and 60.18(c)(1)	Design and operate the flare with no visible emissions except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
60.5412(a)(3), 60.5413(a)(1) and 60.18(c)(2)	Operate the flare with a flame present at all times.
60.5412(a)(3), 60.5413(a)(1), 60.18(c)(3), 60.18(c)(3)(ii), 60.18(c)(4), 60.18(c)(5), and 60.18(f)(3) through (6)	Adhere to the minimum net heating value of gas specified in 60.18(c)(3)ii) and maximum tip velocity specifications in 60.18(c)(4) and (5). Calculate the net heating value of the gas as specified in 60.18(f)(3). Calculate exit velocities as specified in 60.18(f)(4) through (6).
60.5416(c)(4), (5), (6), and (7)	Repair all leaks detected from the closed vent system or cover as soon as practicable. First attempt at repair must be made no later than 5 calendar days after detection, and repair must be completed no later than 30 calendar days after detection, except as provided by rule (e.g.,



	delay of repair, unsafe to inspect, difficult to inspect).
60.5417(d)	Install, calibrate, operate and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the flare's pilot flame.

*The permittee may choose to comply with any alternative standards provided in 40 CFR Part 60, Subparts A and OOOO.

d) Monitoring and/or Recordkeeping Requirements

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

60.5416(c)(1)	Conduct an inspection of each closed vent system at least once every calendar month. Conduct olfactory, visual and auditory inspections for defects that could result in air emissions. Monthly inspections must be separated by at least 14 calendar days.
60.5416(c)(2)	Conduct an inspection of each cover at least once every calendar month. Conduct olfactory, visual and auditory inspections for defects that could result in air emissions. Monthly inspections must be separated by at least 14 calendar days.
60.5416(c)(3)	Either set the flow indicator to sound an alarm at the inlet to the bypass device when the stream is being diverted away from the control device, or visually inspect all bypass valves secured in the non-diverting position at least once a month to verify that valve remains in the non-diverting position.
60.5417(c)(1)	Detect and record the presence of a flare flame at least once every hour.
60.5417(c)(2)	Install, calibrate, operate, and maintain the continuous monitoring systems in accordance with a site specific monitoring plan including the information required by rule.
60.5417(c)(3) and (4)	Conduct a continuous parameter monitoring systems equipment performance check, system accuracy audit, or other audit procedure as specified in the site-specific monitoring plan at least once every 12 months. Conduct performance evaluations of the continuous parameter monitoring systems as specified in the site-specific monitoring plan.
60.5417(d)(1)(iii)	Install, calibrate, operate, and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.



60.5417(g)	Deviation requirements for the control device.
60.5420(c)	The applicable records identified in 40 CFR 60.5420(c) and 40 CFR 60.7(f) must be maintained for a period of 5 years following the date of record and they must be maintained either onsite or at the nearest local field office.
60.5420(c)(5)(ii)	Maintain required records for each VOC emissions determination including identification of the model or calculation methodology.
60.5420(c)(5)(iii)	Maintain required records for deviations.
60.5416(c)(1), 60.5420(c)(5)(i) and 60.5420(c)(6)	Maintain required records for inspections of closed vent systems.
60.5416(c)(2), 60.5420(c)(5)(i) and 60.5420(c)(7)	Maintain required records for inspections of storage vessel covers.
60.5416(c)(3), 60.5420(c)(5)(i) and 60.5420(c)(8)	Maintain required records for inspections of bypass valves.
60.5420(c)(5)(v)	Maintain required records of the identification and location of each storage vessel affected facility.
60.5420(c)(5)(i) and 60.5416(c)(6)(ii)	Maintain a written plan for unsafe to inspect parts.
60.5420(c)(5)(i) and 60.5416(c)(7)(ii)	Maintain a written plan for difficult to inspect parts.
60.5421(b)	Maintain required records for pressure relief devices.

- (2) The permittee shall record the annual throughput of each tank in gallons per year. The permittee shall keep records of U.S. EPA TANKS software program and/or other process simulation program calculations used to demonstrate annual storage tank and process vent emissions. These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

e) Reporting Requirements

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



- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart OOOO, including the following sections:

60.5420(a)(1)	Initial notifications required in 60.7(a)(1), (3) and (4) are not required for storage vessels.
60.5410(h)(4), 60.5420(b)	Submit the required information for storage vessels in the initial annual report within 90 days of the end of the initial compliance period and in the subsequent reports due the same date each year as the initial annual report.
60.5422	Submit the required information for pressure relief devices.

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:
 Install an enclosed flare that is designed to meet 98% control efficiency of VOC emissions

Applicable Compliance Method:
 Compliance is demonstrated by the manufacturer’s guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P009.

g) Miscellaneous Requirements

- (1) None.



**12. Emissions Unit Group -Stabilized Condensate Tanks:
T002,T003,T004,T005,T006,T007,T008,T009**

EU ID	Operations, Property and/or Equipment Description
T002	Stabilized Condensate Tank #1
T003	Stabilized Condensate Tank #2
T004	Stabilized Condensate Tank #3
T005	Stabilized Condensate Tank #4
T006	Stabilized Condensate Tank #5
T007	Stabilized Condensate Tank #6
T008	Stabilized Condensate Tank #7
T009	Stabilized Condensate Tank #8

Tanks are controlled by the Tank Flare (P009).

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)	Install an enclosed flare that is designed to meet 98% control efficiency of VOC emissions. See b)(2)a. The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart Kb.
b.	OAC rule 3745-31-05(A)(3)(a)(ii)	The Best Available Technology (BAT)



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b.
d.	OAC rule 3745-21-09(L)(2)(b)	See b)(2)c.
e.	40 CFR Part 60, Subpart Kb (60.110b-60.117b) [In accordance with 40 CFR 60.110b this emissions unit is a storage vessel with a capacity greater than or equal to 75 cubic meters that is used to store volatile organic liquids for which construction, reconstruction, or modification is commenced after July 23, 1984.]	The storage vessel shall be equipped with a closed vent system and control device to reduce VOC emissions by 95% or greater. See c)(1), d)(1) and e)(3).

(2) Additional Terms and Conditions

- a. The Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. A fixed roof tank meeting one of the following criteria is exempt from installing an internal floating roof or other control device and is not subject to the requirements identified in OAC rule 3745-21-09(L):
 - i. a fixed roof tank with a capacity of less than 40,000 gallons; or
 - ii. a fixed roof tank used to store crude oil and condensate prior to lease custody transfer and with a capacity of less than 422,000 gallons; or
 - iii. a fixed roof tank that stores a petroleum liquid with a true vapor pressure less than or equal to 1.52 pounds per square inch absolute.

If not meeting one of these exemptions the storage vessel shall be installed to comply with the control requirements of OAC rule 3745-21-09(L).



c) Operational Restrictions

- (1) The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart Kb, including the following sections:

60.112b(a)(3)	Equip each storage vessel with a closed vent system and control device.
60.112b(a)(3)(i)	Design the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR Part 60, Subpart VV, section 60.485(b).
60.112b(a)(3)(ii)	Design and operate the control device to reduce inlet VOC emissions by 95% or greater. If a flare is used, it shall meet the specifications in section 60.18.
60.112b(a)(4)	Equip each storage vessel with an equivalent system as provided in section 60.114b.
60.113b(d)	If equipped with a closed vent system and flare, then meet the requirements as specified in the general control device requirements, sections 60.18(e) and (f).

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall comply with the applicable monitoring and recordkeeping requirements required under 40 CFR Part 60, Subpart Kb, including the following sections:

60.113b(c)(2)	Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan.
60.115b(c)(1)	Maintain a copy of the operating plan.
60.115b(c)(2)	Maintain a record of the measured values of the parameters monitored in accordance with section 60.113b(c)(2).
60.115b(d)(2)	Maintain records of all periods during which the flare pilot flame is absent, if a flare is installed to comply.
60.115b and 60.116b(a)	Maintain copies of all records required by 40 CFR Part 60, Subpart Kb for a period of two years, except that records required by 60.115b(c)(1) and 60.116b(b) must be kept for the life of the storage vessel.
60.116b(b)	Maintain records showing the dimensions of the storage vessel and analysis of the capacity of the storage vessel.



e) Reporting Requirements

- (1) The reports required by this permit may be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal; or they may be mailed as a hard copy to the appropriate district office or local air agency.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA District Office or Local Air Agency by the due date identified in the Authorization section of this permit. The permit evaluation report shall cover a reporting period of no more than twelve months for each air contaminant source identified in this permit.
- (3) The permittee shall comply with the applicable reporting requirements required under 40 CFR Part 60, Subpart Kb, including the following sections:

60.113b(c)(1)	Submit an operating plan as required by rule.
60.115b(d)(1)	Submit a report containing the measurements required by 60.18(f)(1) through (6) as required by section 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.
60.115b(d)(3)	Submit semiannual reports of all periods recorded under section 60.115b(d)(2) in which the pilot flame was absent.

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:

Install an enclosed flare that is designed to meet 98% control efficiency of VOC emissions

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's guaranteed specifications for the flare control efficiency of at least 98% as detailed in emissions unit P009.

g) Miscellaneous Requirements

- (1) None.