Ohio Environmental Protection Agency

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

7/1/2015

Certified Mail

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

Mr. Kijun Hong
Scio Compressor Station
PO BOX 54342
Oklahoma City, OK 73154

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0634005056
Permit Number: P0118716
Permit Type: OAC Chapter 3745-31 Modification
County: Harrison

Dear Permit Holder:

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

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

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

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

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

Sincerely,

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

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

FINAL

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

Facility ID:	0634005056
Permit Number:	P0118716
Permit Type:	OAC Chapter 3745-31 Modification
Issued:	7/1/2015
Effective:	7/1/2015

Ohio Environmental Protection Agency

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

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Authorization

Facility ID:	0634005056
Facility Description:	Natural Gas Production and Compression Facility
Application Number(s):	A0052703
Permit Number:	P0118716
Permit Description:	Chapter 31 modification for various equipment at the natural gas compressor station.
Permit Type:	OAC Chapter 3745-31 Modification
Permit Fee:	$1,700.00
Issue Date:	7/1/2015
Effective Date:	7/1/2015

This document constitutes issuance to:

Scio Compressor Station
37650 Bower Rd
Scio, OH 43988

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

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

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

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Craig W. Butler
Director

Authorization (continued)

Permit Number: P0118716
Permit Description: Chapter 31 modification for various equipment at the natural gas compressor station.

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

Emissions Unit ID:	**J001**
Company Equipment ID:	J001
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P014**
Company Equipment ID:	P014
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P015**
Company Equipment ID:	P015
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P016**
Company Equipment ID:	P016
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P017**
Company Equipment ID:	P017
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P023**
Company Equipment ID:	P023
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	**P801**
Company Equipment ID:	P801
Superseded Permit Number:	P0115003
General Permit Category and Type:	Not Applicable

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:

(1) Standard Term and Condition A.2.a), Severability Clause

(2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements

(3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements

(4) Standard Term and Condition A.9., Reporting Requirements

(5) Standard Term and Condition A.10., Applicability

(6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install

(7) Standard Term and Condition A.14., Public Disclosure

(8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

(9) Standard Term and Condition A.16., Fees

(10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

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

b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d) This permit does not convey any property rights of any sort, or any exclusive privilege.

e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

(1) The date, place (as defined in the permit), and time of sampling or measurements.

(2) The date(s) analyses were performed.

(3) The company or entity that performed the analyses.

(4) The analytical techniques or methods used.

(5) The results of such analyses.

(6) The operating conditions existing at the time of sampling or measurement.

b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

(1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

(2) Quarterly written reports of (i) any deviations from federally enforceable emissionlimitations, operationalrestrictions, andcontroldeviceoperatingparameterlimitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.

(3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, andreportingrequirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.

(4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

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

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

6. Compliance Requirements

a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:

(1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.

(3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

(4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.

c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:

(1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.

(2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

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

8. Air Pollution Nuisance

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

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s)not exempt from the requirement to obtain a Permit-to-Install.

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

a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).

d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted,no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

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

12. Permit-To-Operate Application

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

13. Construction Compliance Certification

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

a) Completion of initial installation date shall be enteredupon completion of construction and prior to start-up.

b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

   a) None.

2. Modeling to demonstrate compliance with, the “Toxic Air Contaminant Statute”, ORC 3704.03(F)(4)(b), was not necessary for this project because the combined emissions units’ (taking into account Ohio EPA’s Engineering Guide 69) maximum annual emissions for each toxic air contaminant, as defined in OAC rule 3745 114 01, will be less than 1.0 ton per year. OAC Chapter 3745 31 requires a permittee to apply for and obtain a new or modified PTI prior to making a "modification" as defined by OAC rule 3745 31 01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTI.

3. Air contaminant sources that qualify as de minimis under OAC rule 3745-15-05, or are exempt under OAC rule 3745-31-03(A)(1) or (4) are not subject to emission standards established within this permit. Although this permit does not apply to de minimis or exempt sources, emissions from de minimis or exempt sources must be included in the total potential to emit (PTE) calculations for this permit.

C. Emissions Unit Terms and Conditions

1. J001, Condensate and Produced Water Truck Loading

Operations, Property and/or Equipment Description:

Condensate (maximum annual throughput of 7,665,000 gallons) and produced water (maximum annual throughput of 1,533,000 gallons) truck loading including one loading point for condensate and produced water. All loading of trucks equipped with submerged fill and vented to a standard flare (P014) with a capture efficiency of 70% and a control/destruction efficiency of 98% for VOC emissions.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Install a flare and capture system with a design capture efficiency of at least 70% and a design control efficiency of at least 98% for volatile organic compound (VOC) emissions. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.
c.	OAC rule 3745-31-05(F) June 30, 2008	See b)(2)c. below.

(2) Additional Terms and Conditions

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

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

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

PTI P0118716 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for VOC under OAC rule 3745-31-05(A)(3):

i. VOC emissions from the loading of trucks with condensate or produced water shall be vented to a flare with a minimum of 70% capture efficiency and 98% control efficiency;

ii. Use of submerged or bottom fill on all trucks; and

iii. Fugitive VOC emissions from condensate and produced water truck loading losses not captured and vented to the flare shall not exceed 8.63 tons per year.

c) Operational Restrictions

(1) The permittee shall install and operate a flare for the control of VOC emissions whenever this emissions unit is 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.

(2) 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 control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

(3) Emissions from the loading of trucks with condensate or produced water shall be vented to a flare with a minimum of 70% capture efficiency and 98% control efficiency for VOC. The flare shall be designed and operated as required in emissions unit P014.

(4) All condensate and produced water loading lines shall be equipped with fittings which are vapor tight.

(5) The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.

(6) The permittee shall not permit condensate or produced water to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.

d) Monitoring and/or Recordkeeping Requirements

(1) 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.

(2) 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.

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

(4) The permittee shall document each inspection (periodic and annual) of the flare and shall maintain the following information:

a. the date of the inspection;

b. a description of each/any problem identified and the date it was corrected;

c. a description of any maintenance and repairs performed; and

d. the name of person who performed the inspection.

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

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

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

a. the amount of throughput of condensate, in gallons;

b. the amount of throughput of produced water, in gallons; and

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

e) Reporting Requirements

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

(2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

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

a. Design Efficiency Standard:

Install a flare and capture system with a design capture efficiency of at least 70% and a design control efficiency of at least 98% for VOC emissions.

Applicable Compliance Method:

Compliance is demonstrated by the manufacturer's design efficiency of a design capture efficiency of at least 70% and a design control efficiency of at least 98% for VOC emissions.

b. Emissions Limitation:

PTI P0118716 for this air contaminant source takes into account the following voluntary restriction (including the use of any applicable air pollution control equipment) as proposed by the permittee for the purpose of avoiding Best Available Technology (BAT) requirements for VOC under OAC rule 3745-31-05(A)(3):

i. VOC emissions from the loading of trucks with condensate or produced water shall be vented to a flare with a minimum of 70% capture efficiency and 98% control efficiency;

ii. Use of submerged or bottom fill on all trucks; and

iii. Fugitive VOC emissions from condensate and produced water truck loading losses not captured and vented to the flare and VOC emissions captured and vented to the flare combined shall not exceed 8.63 tons per year.

Applicable Compliance Method:

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

Condensate truck loading loss:

Truck loading emissions shall be based on multiplying a loading loss factor by the annual liquid throughput in gallons per year divided by 1,000.

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

Condensate loading loss = 12.46 SPM/T

Annual Condensate loading loss = 12.46 X 0.6 X 6.7413 psia X 60 lb/lb mole/ 508.30^{o}R

= 5.95 lbs/1,000 gal of liquid loaded

Annual emissions rate = annual condensate loading lossX condensate

Throughput = 5.95 lb/1,000 gal X 9,198,000 gal = 54,728 lbs/yr.

54,278 lbs/yr divided by 2,000 lbs = 27.36 tons/year

(27.36 tons/year)(1-0.70) = 8.21 tons of VOC/year (fugitive)

(27.36 tons/year)(0.70)(1-0.98)(1.1) = 0.42 ton of VOC/year from flare stack

Total VOC emissions from condensate loading:

0.42 ton/year + 8.21 tons/year = 8.63 tons of VOC/year

Where:

S = saturation factor, 0.6 for submerged loading (AP-42 Chapter 5.2-1)

P = vapor pressure of liquid loaded *

M = molecular weight of vapor *

T = temperature of bulk liquid *

0.70 = capture efficiency of system in decimal form*

0.98 = destruction/control efficiency of flare in decimal form*

1.1 = 10% safety factor added to flare stream*

* frompermittee's application

g) Miscellaneous Requirements

(1) None.

2. P014, Standard Flare - control of emissions from condensate and processed water tank working, breathing, flashing loss and control of emissions from truck loading of condensate and processed water

Operations, Property and/or Equipment Description:

14,094 scfh (19.90 mmBtu/hr) rated standard flare with assist gas (23,725,000 scf/yr and 61,341 mmBtu/year use based on loading and tank use) to control emission from condensate and processed water storage tank working, breathing, and flashing loss (T001) and control of emissions from truck loading of condensate and processed water (J001). Flare downtime is 1% of the year, or 48 hours.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and ORC 3704.3(T)	Total volatile organic compound (VOC) emissions from the pilot gas, assist gas and flared gas shall not exceed 1.86 tons per month averaged over a twelve-month, rolling period. Total carbon monoxide (CO) emissions from the pilot gas, assist gas and flared gas shall not exceed 1.03 tons per month averaged over a twelve-month, rolling period.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	Total nitrogen oxide (NOx) emissions from the pilot gas, assist gas and flared gas shall not exceed 0.28 ton per month averaged over a twelve-month, rolling period. See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

c) Operational Restrictions

(1) The permittee shall install and operate a flare for the control of VOC emissions whenever this emissions unit is 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.

(2) 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 control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(2) The permittee shall conduct periodic inspections of the flare to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

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

(4) The permittee shall document each inspection (periodic and annual) of the flare and shall maintain the following information:

a. the date of the inspection;

b. a description of each/any problem identified and the date it was corrected;

c. a description of any maintenance and repairs performed; and

d. the name of person who performed the inspection.

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

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

(6) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.

(7) The permittee shall record the total scf of flared gas and assist gas sent to the flare each year.

(8) The permittee shall maintain the following records on a monthly basis:

a. mole% of each VOC component in the gas stream using a representative analysis;

b. weight fraction of each VOC component in the gas stream using a representative analysis; and

c. total volume of gas emitted per month, in scf.

e) Reporting Requirements

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

(2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

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

a. Emissions Limitation:

Total VOC emissions from the pilot gas, assist gas and flared gas shall not exceed 1.86 tons per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The tons per month averaged over a twelve-month, rolling period emissions limitation was established based on the below calculations. Compliance with the emissions limitation shall be determined by using the below calculations and the actual scf of gas flared as recorded in d)(7) and the mole%, weight fraction and volume of gas emitted per month as recorded in d)(8) .

Pilot gas emissions:

(5.5 lb/mmscf)(70 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.0002409 ton/year

Flared gas emissions:

Pilot emissions in lb/hr: ∑ (70 scf/hr)(mol%)(molecular weight)(1/100)(1/379.4 scf/lb-mole)

Assist gas emissions in TPY: ∑ (23,725,000 scf/year)(mol%)(mol weight)(1/100)(1/379.4 scf/lb-mole)(1 ton/2,000 lbs)

Assist gas in lb/hr: ∑ (10,830 scf/hr)(mol%)(mol weight)(1/100)(1/379.4 scf/lb-mole)

Loading emissions in lb/hr: ∑ (weight fraction)(total captured VOCs)

Condensate tank emissions in lb/hr: ∑ [total uncontrolled VOC stream from tanks / total weight fraction of VOCs](weight fraction)(1 year/8,760 hrs)

Slop tank emissions on lb/hr: ∑ [total uncontrolled VOC stream from tanks / total weight fraction of VOCs](weight fraction)(1 year/8,760 hrs)

Uncontrolled VOCs in lb/hr = ∑ [assist gas in lb/hr + tank emissions on lb/hr + loading emissions in lb/hr + pilot emissions in lb/hr](1.10)

Uncontrolled VOCs in TPY: ∑ [[uncontrolled VOCs lb/hr – [(lb/hr loading + lb/hr assist)](1.10)](8760 hrs/year)(1 ton/2000 lbs)] + [(TPY loading + TPY assist)(1.10)]

Controlled VOCs in lb/hr: ∑ (Uncontrolled VOCs in lb/hr)(2%)

Controlled VOCs in TPY: ∑ [(Uncontrolled VOCs in TPY)(2%)(98%) + (Uncontrolled VOCs in TPY)(1%)]

Assist gas emissions:

(5.5 lb/mmscf)(23,725,000 scf/yr)(1/1,000,000)(1 ton/2,000 lbs) = 0.06524

Total VOC emissions:

0.0002409 ton/year + 22.20 tons/year + 0.06524 = 22.26 tons/year

22.26 tons/year divided by 12 months = 1.86 tons of VOC per month averaged over a twelve-month, rolling period.

Where:

5.5 lb/mmscf = emission factor from AP-42 Table 1.4-1 (7/98)

70 scf/hr = as submitted in application

molecular weight = constant, in lb/lb-mole

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

23,725,000 scf/yr = as submitted in application

10,830 scf/hr = as submitted in application

98% = control efficiency of flare

1.1 = 10% safety factor added to flare stream

8.49 lbs/hr = VOC emissions based on a 98% control efficiency as submitted in the application

424.32 lbs/hr = uncontrolled VOC emissions estimated as submitted in the application

The flared gas emissions hours incorporate a 1% downtown for the flare.

b. Emissions Limitation:

Total CO emissions from the pilot gas, assist gas and flared gas shall not exceed 1.03 tons per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The tons per month averaged over a twelve-month, rolling period emissions limitation was established based on the below calculations. Compliance with the emissions limitation shall be determined by using the below calculations and the actual scf of gas flared as recorded in d)(7).

Pilot gas emissions:

(84 lb/mmscf)(70 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.0257544 ton/year

Flared gas emissions:

(0.37 lb/mmBtu)(61,341 mmBtu/yr)(1 ton/2,000 lbs) = 11.35 tons/year

Assist gas emissions:

(84 lb/mmscf)(23,725,000 scf/yr)(1/1,000,000)(1 ton/2,000 lbs) = 1.00 ton/year

Total CO emissions:

0.02575 ton/year + 11.35 + 1.00 tons/year = 12.37 tons/year

12.37 tons/year divided by 12 months = 1.03 tons of CO per month averaged over a twelve-month, rolling period.

Where:

84 lb/mmscf = emission factor from AP-42, Table 1.4-1 (7/98)

70 scf/hr = as submitted in application

23,725,000 scf/yr = as submitted in application

61,341 mmBtu/yr = as submitted in application

0.37 lb/mmBtu = emission factor from AP-42, Table 13.5-1 (1/95)

c. Emissions Limitation:

Total NOx emissions from the pilot gas, assist gas and flared gas shall not exceed 0.28 ton averaged over a 12-month, rolling period.

Applicable Compliance Method:

The tons per month averaged over a twelve-month, rolling period emissions limitation was established based on the below calculations. Compliance with the emissions limitation shall be determined by using the below calculations and the actual scf of gas flared as recorded in d)(7).

Pilot gas emissions:

(100 lb/mmscf)(70 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.0306 ton/year

Flared gas emissions:

(0.068 lb/mmBtu)(61,341 mmBtu/yr)(1 ton/2,000 lbs) = 2.08559 ton/year

Assist gas emissions:

(100 lb/mmscf)(23,725,000 scf/yr)(1/1,000,000)(1 ton/2,000 lbs) = 1.186 ton/year

Total NOx emissions:

0.0306 ton/year + 2.08558 + 1.186 tons/year = 3.302 ton/year

3.302 tons/year divided by 12 months = 0.28 ton per month averaged over a 12-month, rolling period.

Where:

100 lb/mmscf = emission factor from AP-42, Table 1.4-1 (7/98)

70 scf/hr = as submitted in application

23,725,000 scf/yr = as submitted in application

61,341 mmBtu/yr = as submitted in application

0.068 lb/mmBtu = emission factor from AP-42, Table 13.5-1 (1/95)

g) Miscellaneous Requirements

(1) None.

3. P015, Standard Flare (20.09 MMBtu/hr) to control flash tank off-gases

Operations, Property and/or Equipment Description:

16,737 scfh (20.09 MMBtu/hr) standard flare with a 1% annual downtime to control flash tank off-gases associated with the dehydration process. Flare is permitted with the flare pilot gas and assist gas burning at 8,760 hours/year and the inherent limitation of flash tank off-gases flaring at 876 hours/year.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) and ORC 3704.3(T)	Total volatile organic compound (VOC) emissions from the pilot gas, assist gas and flared gas shall not exceed 2.12 tons per month averaged over a twelve-month, rolling period. Total carbon monoxide (CO) emissions from the pilot gas, assist gas and flared gas shall not exceed 2.72 tons per month averaged over a twelve-month, rolling period.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	Total nitrogen oxide (NOx) emissions from the pilot gas, assist gas and flared gas shall not exceed 0.50 ton per month averaged over a twelve-month, rolling period. See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

c) Operational Restrictions

(1) The permittee shall install and operate a flare for the control of VOC emissions whenever this emissions unit is 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.

(2) 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 control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

(3) Any time the flash gas compressors are not in operation, the flash tank off-gases shall be vented to a flare with 100% capture efficiency and 98% control efficiency of VOC emissions.

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

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flare, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.

(2) The permittee shall conduct periodic inspections of the flare to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

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

(4) The permittee shall document each inspection (periodic and annual) of the flare and shall maintain the following information:

a. the date of the inspection;

b. a description of each/any problem identified and the date it was corrected;

c. a description of any maintenance and repairs performed; and

d. the name of person who performed the inspection.

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

(5) The permittee shall maintain records that document any time periods when the flare was not in service when the emissions unit(s) was in operation and the flash tank off-gases where not being routed to the compressors, 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.

(6) The permittee shall record the operating times each day for the flare and process operations. The records shall include total number of hours per calendar year in which the flare was used to control the flash tank-off gases due to maintenance activities associated with the compressors.

(7) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.

e) Reporting Requirements

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

(2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

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:

Total VOC emissions from the pilot gas, assist gas and flared gas shall not exceed 2.12 tons per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The ton per month averaged over a twelve-month, rolling period emissions limitation was established based on the below calculations. Compliance with the emissions limitation shall be determined by using the below calculations and the actual hours of operation as recorded in d)(6).

Pilot gas emissions:

(5.5 lb/mmscf)(10 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.0002409 ton/year

Flared gas emissions:

((4.58 lbs/hr)(8,712 hrs/year) + (229.06 lbs/hr)(48 hrs/year))(1 ton/2,000 lbs) = 25.45 tons/year

Assist gas emissions:

(5.5 lb/mmscf)(29 scf/hr)(1/1,000,000)(8,760 hr/year)(1 ton/2,000 lbs) = 0.00069861

Total VOC emissions:

0.0002409 ton/year + 25.45 tons/year +0.00069861 = 25.45 tons/year

Where:

5.5 lb/mmscf = emission factor from AP-42 Table 1.4-1 (7/98)

10 scf/hr = as submitted in application

29 scf/hr = as submitted in application

4.58 lbs/hr = VOC emissions based on a 98% control efficiency as submitted in the application

229.06 lbs/hr = uncontrolled VOC emissions estimated as submitted in application

The flared gas emissions hours incorporate a 1% downtime for the flare.

b. Emissions Limitation:

Total CO emissions from the pilot gas, assist gas and flared gas shall not exceed 2.72 tons per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The ton per month averaged over a twelve-month, rolling period emissions limitation was established based on the below calculations. Compliance with the emissions limitation shall be determined by using the below calculations and the actual hours of operation as recorded in d)(6).

Pilot gas emissions:

(84 lb/mmscf)(10 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.0037 ton/year

Flared gas emissions:

(0.37 lb/mmBtu)(20.09 mmBtu/hr)(8,760 hrs/year)(1 ton/2,000 lbs) = 32.56 tons/year

Assist gas emissions:

(84 lb/mmscf)(29 scf/hr)(1/1,000,000)(8,760 hr/year)(1 ton/2,000 lbs) = 0.01066 ton/year

Total CO emissions:

0.0037 ton/year + 32.56 tons/year + 0.01066 ton/year = 32.58 tons/year

32.58 tons/year divided by 12 months = 2.72 ton of CO per month averaged over a twelve-month, rolling period.

Where:

84 lb/mmscf = emission factor from AP-42, Table 1.4-1 (7/98)

10 scf/hr = as submitted in application

20.09 mmBtu/hr = as submitted in application

29 scf/hr = as submitted in application

0.068 lb/mmBtu = emission factor from AP-42, Table 13.5-1 (1/95)

c. Emissions Limitation:

Total NOx emissions from the pilot gas, assist gas and flared gas shall not exceed 0.50 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The ton per month averaged over a twelve-month, rolling period emissions limitation was established based on the below calculations. Compliance with the

emissions limitation shall be determined by using the below calculations and the actual hours of operation as recorded in d)(6).

Pilot gas emissions:

(100 lb/mmscf)(10 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.00438 ton/year

Flared gas emissions:

(0.068 lb/mmBtu)(20.09 mmBtu/hr)(8,760 hrs/year)(1 ton/2,000 lbs) = 5.983 tons/year

Assist gas emissions:

(100 lb/mmscf)(29 scf/hr)(1/1,000,000)(8,760 hr/year)(1 ton/2,000 lbs) = 0.012702 ton/year

Total NOx emissions:

0.00438 ton/year + 5.983 tons/year + 0.012702 = 6.00 tons/year

6.00 tons/year divided by 12 months = 0.50 ton of NOx per month averaged over a twelve-month, rolling period.

Where:

100 lb/mmscf = emission factor from AP-42, Table 1.4-1 (7/98)

10 scf/hr = as submitted in application

20.09 mmBtu/hr = rating of flare as submitted in application

29 scf/hr = rating of flare as submitted in application

0.068 lb/mmBtu = emission factor from AP-42, Table 13.5-1 (1/95)

g) Miscellaneous Requirements

(1) None.

4. P016, Enclosed Flare (2.94 MMBtu/hr) to control non-condensable still vent vapors

Operations, Property and/or Equipment Description:

1,760 scfh (2.94 MMBtu/hr) enclosed flare with a 3% annual downtime - 100% capture and 98% control efficiency of VOC emissions from the non-condensable still vent vapors associated with the dehydration process (including emissions from three 110-MMSCFD dehydration units).

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) & ORC 3704.03(T)	Total volatile organic compound (VOC) emissions from the pilot gas and flared gas shall not exceed 1.88 tons per month averaged over a twelve-month, rolling period.
b.	OAC rule 3745-31-05(A)(3) June 30, 2008	Total nitrogen oxide (NOx) emissions from the pilot gas and flared gas shall not exceed 0.07 ton per month averaged over a twelve-month, rolling period. Total carbon monoxide (CO) emissions from the pilot gas and flared gas shall not exceed 0.40 ton per month averaged over a twelve-month, rolling period. See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NOx and CO emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

c) Operational Restrictions

(1) The permittee shall install and operate a flare for the control of VOC emissions whenever this emissions unit is 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.

(2) 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 control device shall be expeditiously repaired or otherwise returned to these documented operating conditions.

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

(4) A pressure sensor shall be maintained at all times on the flare to detect the need for a flame.

(5) The device to monitor the flare for the presence of flame shall be in operation at all times the pressure sensor detects a need for a flame.

d) Monitoring and/or Recordkeeping Requirements

(1) 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.

(2) 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.

(3) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the flare and perform

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

(4) The permittee shall document each inspection (periodic and annual) of the flare and shall maintain the following information:

a. the date of the inspection;

b. a description of each/any problem identified and the date it was corrected;

c. a description of any maintenance and repairs performed; and

d. the name of the person who performed the inspection.

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

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

(6) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.

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

(8) The permittee shall record the following information each day for the flare and process operations:

a. All periods during which the pressure sensor and/or flame detection device were not functioning properly; and

b. The operating times for the flare and monitoring equipment.

e) Reporting Requirements

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

(2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

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

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:

Total VOC emissions from the pilot gas and flared gas shall not exceed 1.88 tons per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The emissions limitation was established based on the following calculations:

Pilot gas emissions:

(5.5 lb/mmscf)(10 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.0002 ton/year

Flared gas emissions:

((1.95 lbs/hr)(8,466.78 hrs/year) + (97.57 lbs/hr)(293.22 hrs/year))(1 ton/2,000 lbs) = 22.57 tons/year

Total VOC emissions:

0.0002 ton/year + 22.57 tons/year = 22.57 tons/year

22.57 tons/year divided by 12 months = 1.88 tons of VOC per month averaged over a twelve-month, rolling period.

Where:

5.5 lb/mmscf = emission factor from AP-42 Table 1.4-1 (7/98)

10 scf/hr = as submitted in application

1.95 lbs/hr = VOC emissions based on a 98% control efficiency as submitted in the application

97.57 lbs/hr = uncontrolled VOC emissions estimated as submitted in application

The flared gas emissions hours incorporate a 3% downtown for the flare.

b. Emissions Limitation:

Total CO emissions from the pilot gas and flared gas shall not exceed 0.40 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The emissions limitation was established based on the following calculations:

Pilot gas emissions:

(84 lb/mmscf)(10 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.004 ton/year

Flared gas emissions:

(0.37 lb/mmBtu)(2.94 mmBtu/hr)(8,760 hrs/year)(1 ton/2,000 lbs) = 4.764 tons/year

Total CO emissions:

0.004 ton/year + 4.764 tons/year = 4.77 tons/year

4.77 tons/year divided by 12 months = 0.40 ton of CO per month averaged over a twelve-month, rolling period.

Where:

84 lb/mmscf = emission factor from AP-42, Table 1.4-1 (7/98)

10 scf/hr = as submitted in application

2.94 mmBtu/hr = rating of flare as submitted in application

0.37 lb/mmBtu = emission factor from AP-42, Table 13.5-1 (1/95)

c. Emissions Limitation:

Total NOx emissions from the pilot gas and flared gas shall not exceed 0.07 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

The emissions limitation was established based on the following calculations:

Pilot gas emissions:

(100 lb/mmscf)(10 scf/hr)(1/1,000,000)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.004 ton/year

Flared gas emissions:

(0.068 lb/mmBtu)(2.94 mmBtu/hr)(8,760 hrs/year)(1 ton/2,000 lbs) = 0.875 ton/year

Total NOx emissions:

0.004 ton/year + 0.875 tons/year = 0.88 ton/year

0.88 ton/year divided by 12 months = 0.07 tons of NOx per month averaged over a twelve-month, rolling period.

Where:

100 lb/mmscf = emission factor from AP-42, Table 1.4-1 (7/98)

10 scf/hr = as submitted in application

2.94 mmBtu/hr = rating of flare as submitted in application

0.068 lb/mmBtu = emission factor from AP-42, Table 13.5-1 (1/95)

g) Miscellaneous Requirements

(1) None.

5. P017, Equipment Maintenance Blowdown Emissions

Operations, Property and/or Equipment Description:

Fugitive equipment maintenance blowdown emissions where it is not feasible to vent to a flare for control; based on a maximum of 100 events per engine per year (of P001 thru P010 and P024 thru P027) equal to approximately 42.74 tons of VOC per year total.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) & ORC 3704.03(T)	Fugitive volatile organic compound (VOC) emissions shall not exceed 3.56 tons per month averaged over a twelve-month, rolling period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records on a monthly basis:

a. the date, number and type of each maintenance blowdown event;

b. mole% of each VOC component in the gas stream using a representative analysis;

c. total volume of gas emitted from each maintenance blowdown event;

d. total volume of gas emitted from all maintenance blowdown events as tons per month, rolling, 12-month total; and

e. total tons of VOC per month averaged over a rolling, 12-month period.

e) Reporting Requirements

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

(2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

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

a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 3.56 tons per 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)(1):

VOC (tons/month) = sum of the following for each VOC component:
= [molecular weight x ((volume of gas emitted/month) x (mole % of each VOC component/month)) / molar volume conversion] x (1 ton/2,000 pounds)

where:

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

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

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

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

g) Miscellaneous Requirements

(1) None.

6. P023, Pigging Emissions

Operations, Property and/or Equipment Description:

Fugitive pigging emissions; based on a maximum of 70 events per year, equal to approximately 2.45 tons of VOC emissions per year total.

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) June 30, 2008	Fugitive volatile organic compound (VOC) emissions shall not exceed 0.20 ton per month averaged over a twelve-month, rolling period. See b)(2)a.
b.	OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b.

(2) Additional Terms and Conditions

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

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

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain the following records on a monthly basis:

a. the date, number and type of each maintenance pigging event;

b. mole% of each VOC component in the gas stream using a representative analysis;

c. total volume of gas emitted from each maintenance pigging event;

d. total volume of gas emitted from all maintenance pigging events as a tons per month, rolling, 12-month total; and

e. total tons of VOC emissions per month averaged over rolling, 12-month period.

e) Reporting Requirements

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

(2) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

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

a. <u>Emissions Limitation:</u>

Fugitive VOC emissions shall not exceed 0.20 ton per month averaged over a twelve-month, rolling period.

<u>Applicable Compliance Method:</u>

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

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

Where:

Total VOC emissions estimate per one hour event = 70.02 lbs/event (based on 6,994 scf/event, 0.045 lb/scf and 22.21% VOC of gas stream as submitted in application)

Total maximum one hour pigging events per year = 70 (as submitted in application)

g) Miscellaneous Requirements

(1) None.

7. P801, Equipment Leaks

Operations, Property and/or Equipment Description:

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

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3) & ORC 3704.03(T)	Fugitive volatile organic compound (VOC) emissions shall not exceed 4.99 ton per month averaged over a twelve-month, rolling period.

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) Ancillary Equipment Leak Detection and Repair Program

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

a. Leaks shall be detected by the use of either a “Forward Looking Infra-Red” (FLIR) camera or an analyzer meeting U.S. EPA Method 21 of 40 CFR Part 60, Appendix A.

b. An initial monitoring shall be completed within 90 days of startup and quarterly thereafter for a period of four consecutive quarters (1 year).

c. If following the initial four consecutive quarters, less than or equal to 2.0% of the ancillary equipment are determined to be leaking during the most recent quarterly monitoring event, then the frequency of monitoring can be reduced to semi-annual.

d. If following two consecutive semi-annual periods, less than 2.0% of the ancillary equipment are determined to be leaking during the most recent semi-annual monitoring event, then the frequency of the monitoring can be reduced to annual.

e. If more than or equal to 2.0% of the ancillary equipment are determined to be leaking during any one of the semi-annual or annual monitoring events, then the frequency of monitoring shall be returned to quarterly.

f. The program shall require the first attempt at repair within five (5) calendar days of determining a leak.

g. The program shall require that the leaking component is repaired within 30 calendar days after the leak is detected.

h. The program shall allow for the delayed repair of a leaking component following the language found in 40 CFR 60.5416(c)(5).

i. The program shall follow the Monitoring and Record Keeping requirements described in paragraph 5.d) of this permit.

(2) In the event that a leak or defect is detected in the cover, closed vent system, process equipment, or control device, the permittee shall make a first attempt at repair no later than 5 calendar days after the leak is detected. Repair shall be completed no later than 30 calendar days after the leak is detected as allowed in 40 CFR 60.5416(c)(4). Any delay of repair of a leak or defect shall meet the requirements of 40 CFR 60.5416(c)(5).

d) Monitoring and/or Recordkeeping Requirements

(1) Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing FLIR Camera's

a. Leaks shall be determined by visually observing each ancillary component through the FLIR camera to determine if leaks are visible.

b. The following information shall be recorded during each leak inspection:

i. the date the inspection was conducted;

ii. the name of the employee conducting the leak check;

iii. the identification of any component that was determined to be leaking;

iv. the date the first attempt to repair the component was made;

v. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);

vi. the date the component was repaired and determined to no longer be leaking;

vii. the total number of components that are leaking; and

viii. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of ancillary components capable of developing a leak, and multiplied by 100.

c. The permittee shall maintain records that demonstrate the FLIR camera is operated and maintained in accordance with the manufacturer's operation and maintenance instructions.

d. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

(2) Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing a Method 21 Analyzer

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

b. A component is considered to be leaking if the instrument reading is equal to or greater than:

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

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

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

c. The following information shall be recorded during each leak inspection:

i. the date the inspection was conducted;

ii. the name of the employee conducting the leak check;

iii. the identification of any component that was determined to be leaking (company ID and component type (flange, pump, etc.);

iv. the date the first attempt to repair the component was made;

v. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);

vi. the date the component was repaired and determined to no longer be leaking;

vii. the total number of components that are leaking; and

viii. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of ancillary components capable of developing a leak, and multiplied by 100.

d. The permittee shall maintain records that demonstrate the Method 21 analyzer is operated and maintained in accordance with the manufacturer's operation and maintenance instructions.

e. In order to calibrate the analyzer, the following calibration gases shall be used:

i. zero air, which consists of less than 10 ppm of hydrocarbon in air; and

ii. a mixture of air and methane or n-hexane at a concentration of approximately, but less than, 10,000 ppm of methane or n-hexane.

f. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

e) Reporting Requirements

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

(2) For each inspection that occurred during the year, the permittee shall submit the following information annually from data collected by the ancillary equipment leak detection and repair program:

a. the date of the inspection;

b. the number of components determined to be leaking;

c. the company ID and component type (flange, pump, etc.) of each leaking component;

d. the total number of components at the site;

e. the percent of components determined to be leaking;

f. a list of all components that have not been repaired due to a delay of repair and the reason for the delay; and

g. a notification indicating if the permittee has changed future inspection frequencies based on the percent of components leaking.

(3) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

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

a. <u>Emissions Limitation:</u>

Fugitive VOC emissions shall not exceed 4.99 tons per month averaged over a twelve-month, rolling period

<u>Applicable Compliance Method:</u>

The rolling, 12-month VOC emissions limitation was established by the following calculation based on the emissions factors (lb/hr/component) provided in the permittee's application and the provided speciated gas analysis (VOC emissions + 10% safety factor):

VOC = [(# of valves in gas service X gas service valve EF X 0.227755 VOC wt fraction + 10%)

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

+ (# of pump seals in light oil service X light oil service pump EF X 1.00 VOC wt fraction+ 10%)

+ (# of flanges in gas service X gas service flange EF X 0.227755 VOC wt fraction + 10%)

+ (# of connectors in gas service X gas service connector EF X 0.227755 VOC wt fraction+ 10%)

+ (# of connectors in light oil service X light oil service connector EF X 1.00 VOC wt fraction + 10%)

+ (# of compressor seals in gas service X gas service compressor seals EF X 0.227755 VOC wt fraction + 10%)

+ (# of relief valves in gas service X gas service relief valve EF X 0.227755 VOC wt fraction + 10%),

+ (# of other sources in gas service X gas service other sources EF X 0.227755 VOC wt fraction + 10%)

+ (# of other sources in light oil service X light oil service other sources EF X 1.0 VOC wt fraction + 10%)], then

X 8,760 hrs/yr X 1 ton/2,000 lbs and divided by 12 months ≤ 4.99 tons per month averaged over a twelve-month, rolling period.

Where:

Valve EFs = 0.00992 lb/hr/source for gas service, and 0.00551 lb/hr/source for light oil service

Pump Seal EFs = 0.0287 lb/hr/source for light oil service;

Flange EFs =0.000860 lb/hr/source for gas service;

Connector EFs =0.000441 lb/hr/source for gas service, and 0.000463 lb/hr/source for light oil service;

Compressor seals EFs =0.0194 lb/hr/source for gas service;

Relief valves EFs =0.0194 lb/hr/source for gas service; and

Other sources* EFs = 0.0.194 lb/hr/source for gas service; and 0.0165 lb/hr/source for light oil service

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

g) Miscellaneous Requirements

(1) None.