



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

9/21/2016

Nathan Wheldon
 Humphreys Compressor Station
 1515 Arapahoe St
 Tower 1, Suite 1600
 Denver, CO 80202

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0607015007
 Permit Number: P0121612
 Permit Type: Administrative Modification
 County: Belmont

Certified Mail

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

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**
- **What should you do if you notice a spill or environmental emergency?**

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.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, 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
Humphreys Compressor Station**

Facility ID:	0607015007
Permit Number:	P0121612
Permit Type:	Administrative Modification
Issued:	9/21/2016
Effective:	9/21/2016



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

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Final Permit-to-Install
Humphreys Compressor Station
Permit Number: P0121612
Facility ID: 0607015007
Effective Date: 9/21/2016

Authorization

Facility ID: 0607015007
Facility Description: 240 mmscf natural gas compressor station w/ dehydrator systems
Application Number(s): M0004166, M0004172
Permit Number: P0121612
Permit Description: Agency-initiated administrative modification to add in terms and conditions left out from the Chapter 31 modification permit P0121239.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 9/21/2016
Effective Date: 9/21/2016

This document constitutes issuance to:

Humphreys Compressor Station
Johnson Ridge Rd
Barnesville, OH 43713

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

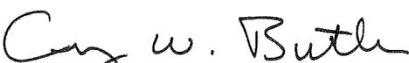
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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: P0121612

Permit Description: Agency-initiated administrative modification to add in terms and conditions left out from the Chapter 31 modification permit P0121239.

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

Emissions Unit ID:	P007
Company Equipment ID:	P007
Superseded Permit Number:	P0121239
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P009
Company Equipment ID:	P009
Superseded Permit Number:	P0121239
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P801
Company Equipment ID:	P801
Superseded Permit Number:	P0116619
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T007
Company Equipment ID:	T001-005
Superseded Permit Number:	P0121239
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Humphreys Compressor Station
Permit Number: P0121612
Facility ID: 0607015007
Effective Date:9/21/2016

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 emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, 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, and reporting requirements 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 the Ohio EPA DAPC, Southeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

6. Compliance Requirements

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

14. Public Disclosure

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

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

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

16. Fees

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

17. Permit Transfers

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

18. Risk Management Plans

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

19. Title IV Provisions

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



Final Permit-to-Install
Humphreys Compressor Station
Permit Number: P0121612
Facility ID: 0607015007
Effective Date: 9/21/2016

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), for this project were not necessary because for the emissions units not exempted from modeling per OEPA 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 when controlled. OAC Chapter 3745 31 requires permittees to apply for and obtain a new or modified PTIO prior to making a "modification" as defined by OAC rule 3745 31 01. The permittee is hereby advised that changes in the composition of the materials or use of new materials that would cause the emissions of any toxic air contaminant to increase to above 1.0 ton per year may require the permittee to apply for and obtain a new PTIO.
3. Specific emissions units contained in this permit are subject to 40 CFR Part 60, Subparts OOOO. The complete NSPS requirements, including the NSPS General Provisions, may be accessed via the internet from the e-CFR website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office or local air agency.
4. Dehydration processes (P007) contained in this permit are subject to 40 CFR Part 63, Subpart HH. The dehydration processes at this facility are exempt per 63.764(e)(1)(ii) from the requirements of 63.764(d) due to actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere being less than 0.90 Mg/yr, as determined by the procedures specified in 63.772(b)(2) of 40 CFR 63, Subpart HH. The complete MACT requirements, including the MACT General Provisions may be accessed via the internet from the e-CFR website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District office of local air agency.
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 PTE calculations for this permit. PTE calculations should include sources such as:
 - a) Dehydrator reboiler heaters (2.50 MMBtu/hr), B001-B002 (*de minimis*);
 - b) Truck loading, J001 (*de minimis*);
 - c) Roadways and parking areas, F001 (*de minimis*); and
 - d) Methanol tank (500 gal), T006 (*de minimis*).
4. The Compressor Station must comply with the Used Oil Management Standards of OAC Chapter 3745-279.
5. Abbreviations throughout are as follows:

Pollutants	
NO _x	nitrogen oxides
CO	carbon monoxide

VOC volatile organic carbon
 PE particulate emissions
 CO₂e carbon dioxide equivalents

Units

TPY tons per year
 lb pound
 gal gallon
 g gram
 bbl barrel
 MM million
 Btu British thermal units
 bhp brake horsepower
 hr hour
 m month
 yr year
 d day

Regulations

OAC Ohio Administrative Code
 ORC Ohio Revised Code
 CFR Code of Federal Regulations
 e-CFR Electronic Code of Federal Regulation
 BAT Best Available Technology
 MACT Maximum Achievable Control Technology
 NSPS New Source Performance Standards
 NESHAP National Emission Standards for Hazardous Air Pollutants
 GACT Generally Available Control Technology

General

PTE Potential-to-Emit
 PTIO Permit-to-Install
 SIP State Implementation Plan
 NAAQS National Ambient Air Quality Standards

5. VRU Vapor Recovery Unit



Final Permit-to-Install
Humphreys Compressor Station
Permit Number: P0121612
Facility ID: 0607015007
Effective Date:9/21/2016

C. Emissions Unit Terms and Conditions

1. P007 Dehydration Process

Operations, Property and/or Equipment Description:

a) Dehydration process including two 150 MMscf/d glycol dehydrators and flash-off gases controlled by two 7.0 MMBtu/hr flares with 100% capture and 98% control efficiency of VOC emissions. The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	CO emissions from both flares combined shall not exceed 1.60 tons/m as a rolling, 12-month average.
b.	OAC rule 3745-31-05(A), as effective 6/30/2008	NOx emissions from both flares combined shall not exceed 0.36 ton/m as a rolling, 12-month average. VOC emissions from both flares combined shall not exceed 0.14 ton/m as a rolling, 12-month average. See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/2008	The Best Available Technology requirements under OAC rule 3745-31-05(A) do not apply to NOx emissions from this source since the potential to emit is less than 10 tons/year. The Best Available Technology requirements under OAC rule 3745-31-05(A) do not apply to VOC emissions from this source since the potential to emit is less than 10 tons/year taking into account the voluntary restriction from

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		OAC rule 3745-31-05(E). See b)(2)b. below.
d.	OAC rule 3745-31-05(E), as effective 6/30/2008	Emissions shall not exceed 1.66 tons of VOC per year Install and operate two flares with 100% capture and 98% control efficiency of VOC emissions.
e.	40 CFR Part 63, Subpart HH (40 CFR 63.760-63.779) [In accordance with 40 CFR 63.760(a)(2)-(3), this emissions unit processes, upgrades, or stores natural gas or hydrocarbon liquids prior to the point of custody transfer from the facility.]	See b)(2)c. below.
e.	40 CFR 63.1-15 (40 CFR 63.764)	Table 2 of Subpart HH of 40 CFR Part 63 shows which parts of the General Provisions in 40 CFR 63.1-15 apply.

(2) Additional Terms and Conditions

- a. The BAT emissions limitation 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. The dehydration units controlled by the flares and located at this facility are subject to 40 CFR Part 63, Subpart HH, National Emission Standards for Hazardous Air Pollutants (NESHAP) From Oil and Natural Gas Production Facilities. The dehydration units at this facility are exempt per 63.764(e)(ii) from the requirements of 63.764(d)(2) due to the actual average emission of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by the procedures specified in 63.772(b)(2) of 40 CFR Part 63, Subpart HH.

c) Operational Restrictions

- (1) The permittee shall operate the flares at all times the dehydrator glycol regeneration units are in operation for the control of VOC emissions and shall maintain the flares in

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

- (2) In the event the flares are 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.

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

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the flares, 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 flares 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 flares while the emissions unit is shut down and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the flares 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 flares were not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the flares were 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 comply with the applicable recordkeeping requirements required under 40 CFR Part 63, Subpart HH, including the following sections:

63.774(d)	Record the actual annual benzene emissions calculated as provided by rule.
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e) Reporting Requirements

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

NO_x emissions shall not exceed 0.36 ton/m as a rolling, 12-month average.

Applicable Compliance Method:

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

$$2 \left\{ \frac{0.479 \text{ lb NO}_x}{\text{hr}} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} \right\} = 0.36 \frac{\text{ton}}{\text{rolling 12 m}}$$

b. Emissions Limitation:

CO emissions shall not exceed 1.9 ton/m as a rolling, 12-month average.

Applicable Compliance Method:

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

$$2 \left\{ \frac{2.17 \text{ lb CO}}{\text{hr}} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} \right\} = 1.60 \frac{\text{ton}}{\text{rolling } 12 \text{ m}}$$

c. Emissions Limitation:

VOC emissions shall not exceed 0.14 ton/m as a rolling, 12-month average and 1.66 tpy.

Applicable Compliance Method:

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

The VOC emissions limitation is based on a maximum glycol circulation rate and a maximum natural gas flow of 150 MMscf/day, a VOC destruction efficiency of ≥ 98% and the worst case pollutant concentrations from representative gas analysis of the inlet gas, as presented in the permittee’s application.

d. Design Efficiency:

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

Applicable Compliance Method:

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

g) Miscellaneous Requirements

- (1) None.

2. P009 Equipment Blowdowns

Operations, Property and/or Equipment Description:

Gas releases from evacuation of piping during maintenance and blowdowns (maximum 300 MMscf/d)

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 6/30/2008	Fugitive VOC emissions shall not exceed 0.18 ton/m as a rolling, 12-month average. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(a)(ii), as effective 6/30/2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A) do not apply to the VOC emissions from this source since the potential to emit is less than 10 tons/year. See b)(2)b. below.

(2) Additional Terms and Conditions

a. The BAT emissions limitation 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 and blowdown event;
 - b. Percent VOC fraction in the gas stream obtained by representative sampling and analysis (e.g., gas chromatography);
 - c. Total volume of gas emitted from each maintenance and blowdown event;
 - d. Total volume of gas emitted from all maintenance and blowdown events as a rolling, 12-month average;
 - e. Gas density derived using actual stream sampling data (e.g., gas chromatography); and
 - f. Monthly VOC emissions in tons/m as a rolling, 12-month average.

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 0.18 ton/m as a rolling, 12-month average.

Applicable Compliance Method:

The VOC emissions limitation was derived by the calculation below using the inputs provided in the permittee's application. Compliance with the VOC emissions limitation shall be determined by the calculation below and the records as required in d)(1) of this permit:

$$\frac{V \text{ scf}}{\text{yr}} * \frac{D \text{ lb}}{\text{scf}} * VOC * \frac{\text{ton}}{2,000 \text{ lb}} * \frac{\text{yr}}{12 \text{ m rolling}} \leq 0.18 \frac{\text{ton}}{\text{m rolling 12}}$$

Where:

V = annual gas release

D = gas density, derived from gas sampling

VOC = VOC fraction

g) Miscellaneous Requirements

(1) None.

3. T007 Storage Tanks

Operations, Property and/or Equipment Description:

Five 13,536 gal submerged fill liquid storage tanks with a VRU designed as a closed loop system with 100% capture of VOC emissions and no more than 168 hours per year of downtime for maintenance. The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(2) None.

a) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	Install a VRU designed to operate as a closed loop system with 100% capture of VOC emissions during VRU operation..
c.	40 CFR Part 60, Subpart OOOO (60.5360-60.5430) [In accordance with 40 CFR, 60.5365(e), this emissions unit is a single storage vessel located in the oil and natural gas segment, natural gas processing segment, or natural gas transmission segment]	Each tank at this facility has a PTE after control(s) of less than 6 TPY and are, therefore, exempt from the requirements of 40 CFR Part 60, Subpart OOOO. Following the compliance date of October 15, 2013, each storage vessel constructed, modified, or reconstructed after August 23, 2011 and with VOC emissions calculated to exceed 6 TPY, shall reduce VOC emissions by 95% or greater.
d.	40 CFR Part 60, Subpart A (60.1-60.19)	General provisions may apply.

(2) Additional Terms and Conditions

b) None. Operational Restrictions

(1) The permittee shall install and operate a VRU as a closed loop system with 100% capture of VOC whenever this emissions unit is in operation and shall maintain the VRU in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.

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

(3) The permittee shall not exceed 168 hr/yr of VRU downtime for routine maintenance.

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

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

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

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

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

- a. the date of the inspection;
- b. a description of each/any problem identified and the date it was corrected;
- c. a description of any maintenance and repairs performed; and
- d. the name of person who performed the inspection.

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

(5) The permittee shall maintain records that document any time periods when the VRU was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the system 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.

d) 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.

e) Testing Requirements

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

a. Design Standard:

Install a VRU designed as a closed loop system with 100% capture during VRU operation for VOC.

Applicable Compliance Method:

Compliance is demonstrated by VRU manufacturer's design efficiency with 100% capture during VRU operation.

f) Miscellaneous Requirements

- (1) None.

4. P801 Equipment Leaks

Operations, Property, and/or Equipment Description:

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), as effective 06/30/2008	Fugitive VOC emissions shall not exceed 0.16 ton/m as a rolling, 12-month average. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06	See b)(2)b. below.
c.	OAC rule 3745-05(E), as effective 6/30/2008	Emissions shall not exceed 1.92 TPY Develop and implement a site specific leak detection and repair program for ancillary equipment as described in 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) 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 be repaired within 30 calendar days after the leak is detected, except as provided for in (c)(2)h.
- h. The program shall allow for the delayed repair of a leaking component following the language found in 40 CFR 60.482-9a.
- i. The program shall follow the Monitoring and Record Keeping requirements described in paragraph 1.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.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform an inspection each day that an operator is at the facility and the facility is in operation or is pressurized in any of its components, for indications of

releases from the pressure relief valves, and any olfactory, visual or auditory indications of equipment leaks. The positive indication of a release or a leak shall be noted in an operations log, along with the following information:

- a. the name of the inspector;
 - b. the date and time inspected;
 - c. the identification of the pressure relief valve that released and/or piece of equipment that leaked;
 - d. the estimated or calculated duration of the pressure relief valve release and/or equipment leak and the estimated emission totals; and
 - e. any corrective actions taken to minimize or eliminate the release or leak.
- (2) The permittee shall maintain records of the maximum scf/m for scheduled maintenance venting.
- (3) Ancillary Equipment Leak Detection and Repair Program Monitoring and Record Keeping for Programs Utilizing FLIR Cameras
- 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. A description of the manufacturer, model number and serial number of the FLIR camera;
 - iii. the name of the employee conducting the leak check;
 - iv. the identification of any component that was determined to be leaking;
 - v. the date the first attempt to repair the component was made;
 - vi. the reason the repair was delayed following the language found in 40 CFR 60.5416(c)(5);
 - vii. the date the component was repaired and determined to no longer be leaking;
 - viii. the total number of components that are leaking; and
 - ix. 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 written 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 oral or written request.
- (4) 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 to be 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	500 ppm
pressure relief device in light liquid service	10,000 ppm
pumps in light liquid service	2,000 ppm
compressor	500 ppm
sampling connection system*	*
open ended valves or lines**	**
valves in gas/vapor and light liquid service	500 ppm
closed vent system	500 ppm
connectors in gas/vapor and light liquid service	500 ppm
all other ancillary and associated equipment	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 oral 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) The deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
 - (3) Supplement to the PER for the Ancillary Equipment Leak Detection and Repair Program
- For each inspection that occurred during the year, the permittee shall submit the following information with the annual PER 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.

f) Testing Requirements

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

- a. Emissions Limitation:

Fugitive VOC emissions shall not exceed 0.16 ton/m as a rolling, 12-month average and 1.92 tons per year.

Applicable Compliance Method:

Compliance with the fugitive VOC emissions limitation shall be demonstrated by the following calculation based on the emissions factors provided in Table 2-4 of US EPA's Protocol for Equipment Leak Emission Estimates (11/95) for components in gas, light oil, and water/oil service and the information provided in the permittee's application:

$$\sum (\text{component count} * \text{max leak rates} * \text{VOC fraction} * \frac{8,760 \text{ hr}}{\text{yr}} * \frac{1 \text{ ton}}{2,000 \text{ lb}} = 1.92 \frac{\text{ton}}{\text{year}} * \frac{1 \text{ yr}}{12 \text{ m rolling}}) \leq 0.16 \text{ ton/m rolling 12}$$

Where component counts, max leak rates, and VOC fractions are based on the data provided in the permittee's application.

g) Miscellaneous Requirements

- (1) None.