



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

6/8/2016

Kijun Hong
Stock Compressor Station
PO Box 54342
Oklahoma City, OK 73154

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0634000110
Permit Number: P0117893
Permit Type: Initial Installation
County: Harrison

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

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

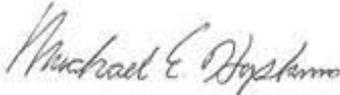
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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
Stock Compressor Station**

Facility ID:	0634000110
Permit Number:	P0117893
Permit Type:	Initial Installation
Issued:	6/8/2016
Effective:	6/8/2016



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

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Final Permit-to-Install
Stock Compressor Station
Permit Number: P0117893
Facility ID: 0634000110
Effective Date: 6/8/2016

Authorization

Facility ID: 0634000110
Facility Description: Natural gas distribution.
Application Number(s): A0048590, A0053532
Permit Number: P0117893
Permit Description: Initial installation permit for compressor station emissions units installed in 2008.
Permit Type: Initial Installation
Permit Fee: \$1,800.00
Issue Date: 6/8/2016
Effective Date: 6/8/2016

This document constitutes issuance to:

Stock Compressor Station
84650 Merryman Rd.
Cadiz, OH 43907

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

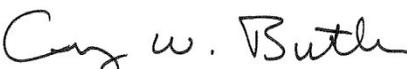
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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: P0117893

Permit Description: Initial installation permit for compressor station emissions units installed in 2008.

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

Emissions Unit ID:	F001
Company Equipment ID:	UPR
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	J001
Company Equipment ID:	L-1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	BD
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P801
Company Equipment ID:	FUG
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	T005
Company Equipment ID:	T-1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: methanol storage tanks



Final Permit-to-Install
Stock Compressor Station
Permit Number: P0117893
Facility ID: 0634000110
Effective Date:6/8/2016

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
Stock Compressor Station
Permit Number: P0117893
Facility ID: 0634000110
Effective Date:6/8/2016

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) See B.2.
2. Modeling to demonstrate compliance with the "Toxic Air Contaminant Statute," ORC 3704.03(F)(4)(b), for this project was not necessary because for the emissions units not exempted from modeling per Ohio EPA 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 TPY when controlled. OAC Chapter 3745-31 requires permittees 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 TPY may require the permittee to apply for and obtain a new PTI.
3. Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
4. Deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
5. Within six months of startup of the facility, the permittee shall collect and analyze a representative sample of the incoming gas and liquids. The permittee shall use the results of the analysis to recalculate the emissions from the various components at the facility utilizing the GRI-GLYCalc or other standard software/emission factors. The permittee shall then compare the results of the revised calculations with the calculations submitted with the air pollution control permit application(s). If the emissions results are significantly different from those results submitted with the application, then the applicant shall submit the revised calculations to the appropriate District Office or Local Air Authority. The applicant should provide all input data used, the basis for each input value used, and the results provided by the program.
6. The composition of the gas being processed may vary due to the nature of the industry. The company will sample the gas semiannually to perform a detailed gas analysis in order to determine if the composition has changed such that it will result in an increase in emissions of any toxic air contaminant. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.
7. Abbreviations throughout are as follows:

Pollutants

NO _x	nitrogen oxides
CO	carbon monoxide
VOC	volatile organic compound
PE	particulate emissions

Units

TPY	tons per year
lb	pound
g	gram
gal	gallon
bbl	barrel

M	thousand
MM	million
scf	standard cubic foot
Btu	British thermal units
hp	horsepower
bhp	brake horsepower
hr	hour
min	minute
m	month
yr	year

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
EF	Emissions factor
PTI	Permit-to-Install
EU	Emissions Unit
SIP	State Implementation Plan
SEDO	Southeast District Office



Final Permit-to-Install
Stock Compressor Station
Permit Number: P0117893
Facility ID: 0634000110
Effective Date:6/8/2016

C. Emissions Unit Terms and Conditions

1. F001, UPR

Operations, Property and/or Equipment Description:

Fugitive emissions from unpaved roads installed 2/1/2008.

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 11/30/01	Particulate Emissions (PE) shall not exceed 0.68 tons per year. No visible PE except as for three minutes during any 60-minute period. Best available control measures that are sufficient to minimize or eliminate visible PE of fugitive dust. See b)(2)a. through b)(2)f. below.
b.	OAC rule 3745-31-05(A)(3)(a)(b), as effective	See b)(2)b. below.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on the unpaved roadways for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee's permit application, the permittee shall employ watering as needed, to minimize or eliminate visible particulate emissions of fugitive dust. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

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



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

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

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

- d. The needed frequencies of implementation of the control measures shall be determined by the permittee's inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for unpaved roadways that are covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.
- e. Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- f. Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05.

c) Operational Restrictions

- (1) None.

d) Monitoring and /or Record Keeping Requirements

- (1) Except as otherwise provided in this section, the permittee shall perform inspections of each of the roadway segments in accordance with the following frequencies:

<u>Unpaved roadways</u>	<u>minimum inspection frequency</u>
all unpaved roadways	daily

- (2) The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required

inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended.

- (3) The permittee shall maintain records of the following information:
- a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in d)(3)d. shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

e) Reporting Requirements

- (1) The permittee shall submit deviation reports that identify any of the following occurrences:
- a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
- (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:
Particulate emissions (PE) shall not exceed 0.68 tons per year.
 - b. Applicable Compliance Method:
Compliance with the fugitive PE limitation shall be determined by using the emission factor equations in Section 13.2.1, in Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume 1 (revised 12/03) for unpaved



roadways. Should further updates in AP-42 occur, the most current equations for unpaved roads shall be used.

c. Emissions Limitation:

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

d. Applicable Compliance Method:

If required, compliance with the visible PE limitation listed above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

g) Miscellaneous Requirements

(1) None.

2. J001, L-1

Operations, Property and/or Equipment Description:

Condensate truck loading with a maximum annual throughput of 21,900 bbl/yr based on the maximum throughput of T001 and a hourly maximum of 7,500 gal/hr, with a maximum of 365-1hr loading events, annually. Installed 2/1/2008.

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 11/30/01	VOC shall not exceed 36.77 lb/hr, and 2.25 tons per year.. See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(b), as effective 12/01/06	See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

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

c) Operational Restrictions

- (1) The delivery vessel and flash/storage vessel hatches shall be verified by the driver/operator to be in good condition, closed and properly seated at all times during the loading of the delivery vessel. Prior to connecting the transfer line(s) from the storage tank to the tanker truck, the permittee shall inspect all fittings, valves, gaskets, and fasteners that will be used during the transfer to ensure they are in proper condition (i.e., not corroded, torn, worn, stripped, or otherwise damaged) and will result in vapor tight connections.
- (2) During loading from the storage tank to the tanker truck, the permittee shall continually monitor the transfer equipment, the storage tank, and the tanker truck for any leaks through visual, olfactory, or other observations. If any leak is detected, loading of the produced water shall cease until the leaking component has been repaired.
- (3) The permittee shall not permit condensate to be spilled, discarded in sewers, stored in open containers, or handled in any other manner that would result in evaporation.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the throughput of the emissions unit in Mgal/d.
- (2) For transfer operations, the permittee shall maintain a record of the following information:
 - a. the date any leak was detected;
 - b. the findings of the inspection for the leak, which shall indicate the location, nature, and severity of the leak;
 - c. the leak detection method;
 - d. the corrective action(s) taken to repair each leak and the date of final repair; and
 - e. the inspector's name and signature.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that summarize the information recorded in d)(2) above. The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, by January 31, April 30, July 31, and October 31, and shall cover the preceding calendar quarter.
- (2) See B. 3.-4.

f) Testing Requirements

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

a. Emissions Limitation:

VOC emissions shall not exceed 36.77lb/hr and 2.25 tons per year.

Applicable Compliance Method:

The emissions limitation was derived by the calculation below using inputs provided in the permittee's application:

Condensate Truck Loading Losses:

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

$$\text{Loading loss factor} = 12.46 * S * P * M / T$$

$$\text{Loading loss factor} = 12.46 * 0.6 * 5.2238 \text{ psia} * 64 \text{ lb/lb-mol} / 509.83^\circ\text{R} = 4.90 \text{ lb/1,000 gal of liquid loaded}$$

$$\text{VOC Emission Rate (TPY)} = \text{Loading loss factor} * \text{condensate throughput}$$

$$= 4.90 \text{ lb/1,000 gal} * 920,000 \text{ gal/yr} * 1 \text{ ton} / 2,000 \text{ lb} = 2.25 \text{ tons per year}$$

$$\text{VOC Emissions Rate (lb/hr)} = \text{Loading loss factor} * \text{hourly condensate throughput}$$

$$= 4.90 \text{ lb/1,000 gal} * 7,500 \text{ gal/hr} = 36.72 \text{ lb/hr}$$

Ongoing compliance shall be demonstrated using the above equation and the recordkeeping in d) above.

g) Miscellaneous Requirements

(1) None.

3. J002, ML-1

Operations, Property and/or Equipment Description:

Methanol truck loading with a maximum of 1,564.3 bbl/yr based on the maximum throughput of T001-T004 and an hourly maximum of 7,000 gal/hr, with a maximum of 365-1hr loading events, annually.

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 11/30/01	VOC shall not exceed 10.27 lb/hr and 0.04 tons per year See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(b), as effective 12/01/06	See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

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

c) Operational Restrictions

- (1) The delivery vessel and flash/storage vessel hatches shall be verified by the driver/operator to be in good condition, closed and properly seated at all times during the loading of the delivery vessel. Prior to connecting the transfer line(s) from the storage tank to the tanker truck, the permittee shall inspect all fittings, valves, gaskets, and fasteners that will be used during the transfer to ensure they are in proper condition (i.e., not corroded, torn, worn, stripped, or otherwise damaged) and will result in vapor tight connections.
- (2) During loading from the storage tank to the tanker truck, the permittee shall continually monitor the transfer equipment, the storage tank, and the tanker truck for any leaks through visual, olfactory, or other observations. If any leak is detected, loading of the produced water shall cease until the leaking component has been repaired.
- (3) The permittee shall not permit methanol 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 records of the throughput of the emissions unit in Mgal/d.
- (2) For transfer operations, the permittee shall maintain a record of the following information:
 - a. the date any leak was detected;
 - b. the findings of the inspection for the leak, which shall indicate the location, nature, and severity of the leak;
 - c. the leak detection method;
 - d. the corrective action(s) taken to repair each leak and the date of final repair; and
 - e. the inspector's name and signature.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that summarize the information recorded in d)(2) above. The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, by January 31, April 30, July 31, and October 31, and shall cover the preceding calendar quarter.
- (2) See B. 3.-4.

f) Testing Requirements

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

a. Emissions Limitation:

VOC emissions shall not exceed 10.27 lb/hr and 0.004 tons per year

Applicable Compliance Method:

The emissions limitation was derived by the calculation below using inputs provided in the permittee's application:

Methanol Truck Loading Losses:

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

$$\text{Loading loss factor} = 12.46 * S * P * M / T$$

$$\text{Loading loss factor} = 12.46 * 1.45 * 1.2077 \text{ psia} * 32.04 \text{ lb/lb-mol} / 510.52^\circ\text{R} = 1.37 \text{ lb/1,000 gal of liquid loaded}$$

$$\begin{aligned} \text{VOC Emission Rate (TPY)} &= \text{Loading loss factor} * \text{methanol throughput} * \\ &= 1.37 \text{ lb/1,000 gal} * 66,000 \text{ gal/yr} * 1 \text{ ton} / 2,000 \text{ lb} = 0.04 \text{ tons per year} \end{aligned}$$

$$\text{VOC Emission Rate (lb/hr)} = 1.37 \text{ lb/1,000 gal} * 7,500 \text{ gal/hr} = 10.27 \text{ lb/hr}$$

Ongoing compliance shall be demonstrated using the above equation and the recordkeeping in d) above.

g) Miscellaneous Requirements

- (1) None.

4. P006, BD

Operations, Property and/or Equipment Description:

Uncontrolled compressor blowdowns with a maximum throughput of 625,000 scf/yr. Installed 02/01/2008.

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 11/30/01	VOC shall not exceed 3.36 tons per year See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(b), as effective 12/01/06	See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

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

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records:
- a. the date, number, and type of each 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 blowdown; and
 - d. total volume of gas emitted from all blowdown events per year.

e) Reporting Requirements

- (1) See B. 3.-4.

f) Testing Requirements

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

a. Emissions Limitation:

VOC shall not exceed 3.36 tons per year.

Applicable Compliance Method:

The emissions limitation was derived by the calculation below using inputs provided in the permittee's application:

Compressor Blowdown VOC Emissions:

$284.17 \text{ lb/blowdown} * 19.909 \text{ wt\% VOC} * 60 \text{ blowdowns/yr/compressor} * 2 \text{ compressors} * 1 \text{ ton}/2,000 \text{ lb} = 3.36 \text{ tons per year}$

Where

$284.17 \text{ lb/blowdown} = \text{Blowdown emissions per blowdown event as submitted in the application}$

$19.909 \text{ wt\% VOC} = \text{VOC weight percent in the gas, as submitted in the application}$



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60 blowdowns/yr/compressor = Number of annual blowdowns per compressor,
as submitted in the application

- g) Miscellaneous Requirements
 - (1) None.

5. P801, FUG

Operations, Property and/or Equipment Description:

Fugitive equipment leaks from various components, including pneumatic controllers, valves, pumps, flanges, and connectors. Installed 02/01/2008.

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 11/30/01	Develop and implement a site-specific leak detection and repair program for ancillary equipment as described in c) below. See b)(2)a. below.
b.	OAC rule 3745-31-05(C), as effective 12/01/06	See b)(2)b. below.

(2) Additional Terms and Conditions

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

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

- c. Permit to Install P0117893 for this air contaminant source takes into account the following voluntary restrictions (including the use of any applicable air pollution control equipment) as proposed by the permittee for purpose for avoiding Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3):
 - a. VOC emissions shall not exceed 2.01 tons per year
 - b. Permittee shall implement an ancillary equipment leak detection and repair program.

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 following 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 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. 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.
 - (3) The permittee shall perform daily inspections, each day that an operator is at the facility and when the facility is in operation, 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.
- e) Reporting Requirements
- (1) See B. 3.-4.
 - (2) For each inspection that occurred during the year as part of the Ancillary Equipment Leak Detection and Repair Program, the permittee shall submit the following information semiannual 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:

VOC emissions shall not exceed 2.1 TPY.

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:

$$\left(\sum \text{component count} * \text{component TOC EF} * \text{max leak rates} * 1.2 \text{ safety factor} * \text{VOC weight percent} \right) \leq 2.1 \text{ TPY}$$

Where component counts, max leak rates, TOC EFs, VOC weight percent, and scheduled maintenance venting parameters are based on the data provided in the permittee's application.

g) Miscellaneous Requirements

- (1) None.

6. T005, T-1

Operations, Property and/or Equipment Description:

100 bbl condensate tank with electric VRU; emissions include downtime of 438 hours when tank will vent uncontrolled. Installed 02/01/2008.

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)	VOC emissions shall not exceed 27.91 tons per year.

(2) Additional Terms and Conditions

a. The permittee shall employ best available control measures on T005 for the purposes of ensuring compliance with the above-mentioned applicable requirements. Nothing in this paragraph shall prohibit the permittee from employing additional control measures to ensure compliance.

c) Operational Restrictions

(1) Vapors from T005 shall be vented to and controlled at all times by a VRU, except during the permitted 438 hours of VRU downtime.

(2) The permittee shall operate the VRU at all times in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.

(3) The permittee shall utilize best engineering practices to ensure the atmospheric storage tank(s) will be isolated in the event of an unauthorized release of regulated materials. The permittee shall monitor tank pressure or level.

d) Monitoring and/or Recordkeeping Requirements

(1) The permittee shall maintain records of the throughput of the emissions unit in bbl/d.

- (2) 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.
- (3) 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.
- (4) The permittee shall document each inspection 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 the person who performed the inspection.

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

- (5) The permittee shall maintain records that document any time periods when the VRU was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the VRU was not operated according to the manufacturer's recommendations with any documented modifications made by the permittee. These records shall be maintained for a period of not less than five years and shall be made available to the Ohio EPA upon request.
- (6) The permittee shall collect a pressurized produced water sample within 90 days of the first facility startup and perform a detailed gas analysis in order to determine the VOC and HAP composition. This sampling shall be repeated on a semiannual basis.
- (7) The permittee shall record the following information on a monthly basis:
 - a. the number of uncontrolled releases to the atmosphere that result from the tank pressure or produced water level exceeding the values established in c)(3), during periods not represented as uncontrolled venting. Details of these releases shall be immediately provided to the Ohio EPA per OAC rule 3745-15-06(B).
- (8) The permittee shall monitor and record the pressure and/or the liquid level within the tanks when the emissions unit is in operation, including periods of startup and shutdown.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer’s recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained for a period of no less than five years. These records can be kept electronically, provided they can be made available to the appropriate Ohio EPA District Office or local air agency. The composition of the gas being processed may vary due to the nature of the industry. The company will sample the gas semiannually to perform a detailed gas analysis in order to determine if the composition has changed such that it will result in an increase in emissions of any toxic air contaminant. 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. After one year, the permittee may petition the Agency to adjust the frequency of sampling.

e) Reporting Requirements

- (1) See Section B. 3.-4.
- (2) The permittee shall submit quarterly deviation reports that identify any deviation from the operational restrictions in c)(1), c)(2), or c)(3). These 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:

VOC emissions shall not exceed 27.91 tons per year.

Applicable Compliance Method:

The emissions limitation was derived by the calculation below using inputs provided in the permittee’s application:

Working Emissions:

Uncontrolled:

$$2,207.99 \text{ lb/yr} * 1 \text{ yr}/8,760 \text{ hr} * 1 \text{ ton}/2,000 \text{ lb} = 0.000126 \text{ tons/hr uncontrolled}$$

Controlled:

$$[0.000126 \text{ tons/hr} * (8,760 - 438) \text{ hr/yr} * (100\% - 100\%)] + [0.000126 \text{ tons/hr} * 438 \text{ hr/yr}] = 0.0051 \text{ tons per year}$$

Breathing Emissions:



Uncontrolled:

$$316.89 \text{ lb/yr} * 1 \text{ yr}/8,760 \text{ hr} * 1 \text{ ton}/2,000 \text{ lb} = 0.000018 \text{ tons/hr uncontrolled}$$

Controlled:

$$[0.000018 \text{ tons/hr} * (8,760 - 438) \text{ hr/yr} * (100\%-100\%)] + [0.000018 \text{ tons/hr} * 438 \text{ hr/yr}] = 0.00788 \text{ tons per year}$$

Flashing Emissions:

Uncontrolled:

$$557.01 \text{ tons/yr} * 1 \text{ yr}/8,760 \text{ hr} = 0.0636 \text{ tons/hr}$$

Controlled:

$$[0.0636 \text{ tons/hr} * (8,760 - 438) \text{ hr/yr} * (100\%-100\%)] + [0.0636 \text{ tons/hr} * 438 \text{ hr/yr}] = 27.85 \text{ tons per year}$$

Total VOC Emissions:

$$0.0051 \text{ TPY} + 0.00788 \text{ TPY} + 27.85 \text{ TPY} = 27.91 \text{ tons per year}$$

Where:

2,207.99 lb/yr = Working Emissions determined using EPA TANKS 4.0.9d, as submitted in application

316.89 lb/yr = Breathing Emissions determined using EPA TANKS 4.0.9d, as submitted in the application

557.01 tons/yr = Flash Emissions calculated using process simulation software, as submitted in the application

438 hr/yr = 5% VRU downtime for preventative maintenance, as submitted in the application

100% = VRU control efficiency while operating, as submitted in the application

g) Miscellaneous Requirements

(1) None.