



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: P0119866  
Permit Type: OAC Chapter 3745-31 Modification  
County: Harrison

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
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](http://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](http://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](http://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:	P0119866
Permit Type:	OAC Chapter 3745-31 Modification
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:** P0119866  
**Facility ID:** 0634000110  
**Effective Date:**6/8/2016

## Authorization

Facility ID: 0634000110  
Facility Description: Natural gas distribution.  
Application Number(s): A0048590, A0053532  
Permit Number: P0119866  
Permit Description: Chapter 31 modification permit for an increase in throughput for P003 (natural gas dehydration system vented to a thermal oxidizer) and P001 & P002 (1340 HP Caterpillar natural gas-fired engines) due to an updated fuel analysis which increased annual emissions.  
Permit Type: OAC Chapter 3745-31 Modification  
Permit Fee: \$1,200.00  
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.

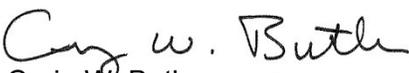
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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: P0119866

Permit Description: Chapter 31 modification permit for an increase in throughput for P003 (natural gas dehydration system vented to a thermal oxidizer) and P001 & P002 (1340 HP Caterpillar natural gas-fired engines) due to an updated fuel analysis which increased annual emissions.

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

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	AC5000
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	AC5001
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	DEHY
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Stock Compressor Station  
**Permit Number:** P0119866  
**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.



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Stock Compressor Station  
**Permit Number:** P0119866  
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## **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. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines at Area Sources. Although Ohio EPA has determined that this GACT applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, US EPA has the authority to enforce this standard. Please be advised, that all requirements associated with this rule are in effect and shall be enforced by US EPA. For more information on the area source rules, please refer to the following US EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
4. This facility is 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.
5. Abbreviations throughout are as follows:

Pollutants

NO <sub>x</sub>	nitrogen oxides
CO	carbon monoxide
VOC	volatile organic carbon
PE	particulate emissions
CO <sub>2</sub> e	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



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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  
PTI        Permit-to-Install  
SIP        State Implementation Plan  
NAAQS     National Ambient Air Quality Standards  
VRU        Vapor Recovery Unit



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## **C. Emissions Unit Terms and Conditions**

**1. Emissions Unit Group: Engines**

**Operations, Property and/or Equipment Description:**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P001	1,340 HP Caterpillar natural gas-fired, reciprocating compressor engine G 3516 LE AFR, lean burn, manufactured 30JUL2007
P002	1,340 HP Caterpillar natural gas-fired, reciprocating compressor engine G 3516 LE AFR, lean burn, manufactured 30JUL2007

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.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	NO <sub>x</sub> emissions shall not exceed 2.2 tons/m as a rolling, 12-month average.
b.	OAC rule 3745-31-05(A)(3), as effective June 30, 2008	CO emissions shall not exceed 0.66 tons/m as a rolling, 12-month average.  VOC emissions shall not exceed 0.15 tons/m as a rolling, 12-month average.  PE shall not exceed 0.04 tons/m as a rolling, 12-month average.  See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO emissions from this air contaminant source since the calculated annual emission rate is < 10 TPY taking into account the voluntary restriction from OAC rule 3745-31-05(E).  See b)(2)b. below.
d.	OAC rule 3745-31-05(E)	CO emissions shall not exceed 7.90 TPY.  Engine shall be operated only with

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		catalytic oxidation to control CO.
e.	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.
f.	OAC rule 3745-17-11(B)(5)(b)	PE shall not exceed 0.062 lb/MMBtu actual heat input.

(2) Additional Terms and Conditions

- a. This BAT emissions limit applies until US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the < 10 TPY BAT exemption as part of the Ohio SIP.
- b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the < 10 TPY BAT exemption) as part of the Ohio SIP.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall install and operate the engine with a catalyst for the control of VOC and CO emissions whenever this emissions unit is in operation and shall maintain the engine in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (3) In the event the engine is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the engine shall be expeditiously repaired or otherwise returned to these documented operating conditions.

d) Monitoring and/or Recordkeeping Requirements

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

e) Reporting Requirements

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

f) Testing Requirements

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

a. Emissions Limitation:

NO<sub>x</sub> emissions shall not exceed 2.2 tons/m as a rolling, 12-month average.

Applicable Compliance Method:

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

$2.00 \text{ g/hp-hr} * 1,340 \text{ hp} * 1 \text{ lb}/453.6 \text{ g} * 8,760 \text{ hr/yr} * 1 \text{ yr}/12 \text{ m} * 1 \text{ ton}/2,000 \text{ lb} = 2.2 \text{ tons/m as a rolling, 12-month average}$

Where,

$2.00 \text{ g/hp-hr} = \text{NO}_x \text{ Emission Factor from Manufacturer's Data, as submitted in the application}$

$1,340\text{-hp} = \text{Horsepower rating, as submitted in the application}$

Nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. See f)(2).

b. Emissions Limitation:

CO emissions shall not exceed 0.66 tons/m as a rolling, 12-month average.

Applicable Compliance Method:

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

$1.85 \text{ g/hp-hr} * 1,340 \text{ hp} * 1 \text{ lb}/453.6 \text{ g} * 8,760 \text{ hr/yr} * 1 \text{ yr}/12 \text{ m} * 1 \text{ ton}/2,000 \text{ lb} * (1-0.70) * 1.1\text{SF} = 0.66 \text{ tons/m as a rolling, 12-month average}$

Where,

$1.85 \text{ g/hp-hr} = \text{CO Emission Factor from Manufacturer's Data, as submitted in the application}$

$1,340\text{-hp} = \text{Horsepower rating, as submitted in the application}$

$0.70 = \text{CO control efficiency by oxidation catalyst, as submitted in application}$

$1.1\text{SF} = 10\% \text{ Safety Factor, as submitted in the application}$

Carbon monoxide emissions shall be determined according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-



approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. See f)(2).

c. Emissions Limitation:

VOC emissions shall not exceed 0.15 tons/m as a rolling, 12-month average.

Applicable Compliance Method:

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

$$[0.26 \text{ g/hp-hr} * 1,340 \text{ hp} * 1 \text{ lb}/453.6 \text{ g} * 8,760 \text{ hr/yr} * 1 \text{ yr}/12 \text{ m} * 1 \text{ ton}/2,000 \text{ lb} * (1-0.70) * 1.1\text{SF}] + [0.26 \text{ g/hp-hr} * 1,340 \text{ hp} * 1 \text{ lb}/453.6 \text{ g} * 8,760 \text{ hr/yr} * 1 \text{ yr}/12 \text{ m} * 1 \text{ ton}/2,000 \text{ lb} * (1-0.80)] = 0.15 \text{ tons/m as a rolling, 12-month average}$$

Where,

0.26 g/hp-hr = VOC Emission Factor from Manufacturer's Data, as submitted in the application

0.26 g/hp-hr = Formaldehyde Emission Factor from Manufacturer's Data, as submitted in the application

1,340-hp = Horsepower rating, as submitted in the application

0.70 = VOC control efficiency by oxidation catalyst, as submitted in application

0.80 = Formaldehyde control efficiency by oxidation catalyst, as submitted in application

1.1SF = 10% Safety Factor, as submitted in the application

VOC emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

d. Emissions Limitation:

PE shall not exceed 0.04 tons/m as a rolling, 12-month average.

Applicable Compliance Method:

$$0.00999 \text{ lb/mmBtu} * 11.21 \text{ mmBtu/hr} * 8,760 \text{ hr/yr} * 1 \text{ yr}/12 \text{ m} * 1 \text{ ton}/2,000 \text{ lb} = 0.04 \text{ tons/m as a rolling, 12-month average}$$

Where,

0.00999 lb/mmBtu= PM Emission Factor from AP-42 Table 3.2-2 (7/00), as submitted in the application

11.21 mmBtu/hr = Fuel Use of the unit, as submitted in the application

e. Emissions Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, visible PE shall be determined according to US EPA Method 9.

f. Emissions Limitation:

PE shall not exceed 0.062 lb/MMBtu actual heat input.

Applicable Compliance Method:

If required, PE shall be determined according to test Methods 1 - 5, as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources." Alternative US EPA-approved test methods may be used with prior approval from Ohio EPA, SEDO.

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated but not later than 180 days after initial startup of the emissions unit. Unless otherwise directed by the Ohio EPA SEDO, the testing is only considered an initial requirement, to be conducted within the referenced timeline.

b. The emission testing shall be conducted to demonstrate compliance with the:

i. 2.00 g/hp-hr emissions factor used to derive the 2.2 tons/m as a rolling, 12-month average limit for NO<sub>x</sub>.

ii. 1.85 g/hp-hr emissions factor used to derive the 0.66 tons/m as a rolling, 12-month average limit for CO.

iii. 0.26 g/hp-hr emissions factor used to derive the 0.15 tons/m as a rolling, 12-month average limit for VOC.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

- i. Nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office. Nitrogen oxides emissions shall be determined according to test Methods 1 - 4, and 7 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.
  - ii. Carbon monoxide emissions shall be determined according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.
  - iii. VOC emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.
- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
  - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.



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- g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

g) Miscellaneous Requirements

- (1) None.

**2. P003, DEHY**

**Operations, Property and/or Equipment Description:**

A 25 MMscf/d natural gas dehydration system vented to a thermal oxidizer with capture and control efficiencies of 100% and 99%, respectively

- 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 June 30, 2008	VOC emissions shall not exceed 0.22 tons/m as a rolling, 12-month average.  See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the calculated annual emission rate is < 10 TPY taking into account the voluntary restriction from OAC rule 3745-31-05(E).  See b)(2)b. below.
c.	OAC rule 3745-31-05(E)	VOC emissions shall not exceed 2.70 TPY.  Flash tank emissions from dehydration shall be routed to a thermal oxidizer for 99% control.
d.	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 hydrocarbon or natural gas liquids prior to the point of custody transfer from the facility.]	See b)(2)c. below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
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. This BAT emissions limit applies until US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the < 10 TPY BAT exemption as part of the Ohio SIP).
- b. These requirements apply once US EPA approves OAC rule 3745-31-05(A)(3)(a)(ii) (the < 10 TPY BAT exemption) as part of the Ohio SIP.
- c. The dehydration units controlled by the thermal oxidizer 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. Pursuant to 40 CFR Part 63, Subpart HH (40 CFR 63.772(b)(2), control equipment to limit benzene emissions is federally enforceable.
- d. See 40 CFR Part 63, Subpart HH (40 CFR 63.760 – 63.779).
- e. All of the VOC emissions from this emissions unit shall be vented to a thermal oxidizer that shall meet the operational, monitoring, and record keeping requirements of this permit, when the emissions unit is in operation.

c) Operational Restrictions

- (1) The permittee shall operate the thermal oxidizer at all times P003 is operating and in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modification deemed necessary by the permittee.
- (2) See 40 CFR Part 63, Subpart HH (40 CFR 63.760 – 63.779).

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of natural gas flow rate to this emissions unit in MMscf/d.
- (2) The permittee shall maintain records that document any time periods when the thermal oxidizer was not in service when the emissions unit(s) was/were in operation, as well as a record of all operations during which the thermal oxidizer 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 Ohio EPA upon request.

- (3) The permittee shall properly install, operate, and maintain a continuous temperature monitor and recorder that measure and record the thermal oxidizer outlet temperature when the organic vapors are being routed to the thermal oxidizer, 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.
- (4) 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.
- (5) See 40 CFR Part 63, Subpart HH (40 CFR 63.760 – 63.779).
- (6) In order to maintain compliance with the applicable emission limitation(s) contained in this permit, the acceptable combustion temperature within the thermal oxidizer, during any period of time when the emissions unit(s) controlled by the thermal oxidizer is/are in operation, shall not be less than 1400 degrees Fahrenheit.
- (7) The permittee shall properly install, operate, and maintain continuous temperature monitors and recorder(s) that measure and record(s) the combustion temperature within the thermal oxidizer when the emissions unit(s) is/are in operation, including periods of startup and shutdown. The permittee shall record the combustion temperature on continuous basis. The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturers recommendations, instructions, and operating manual(s), with any modifications deemed necessary by the permittee. These records shall be maintained at the facility for a period of no less than 5 years.
- (8) Whenever the monitored average combustion temperature within the thermal oxidizer deviates from the range or limit established in accordance with this permit, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation:
  - a. the date and time the deviation began;
  - b. the magnitude of the deviation at that time;
  - c. the date the investigation was conducted;
  - d. the name(s) of the personnel who conducted the investigation; and

- e. the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range/limit specified in this permit, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken:

- f. a description of the corrective action;
- g. the date corrective action was completed;
- h. the date and time the deviation ended;
- i. the total period of time (in minutes) during which there was a deviation;
- j. the temperature readings immediately after the corrective action was implemented; and
- k. the name(s) of the personnel who performed the work.

Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

The temperature range/limit is effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the appropriate Ohio EPA District Office or local air agency. The permittee may request revisions to the permitted temperature range/limit based upon information obtained during future performance tests that demonstrate compliance with the allowable emission rate(s) for the controlled pollutant(s). In addition, approved revisions to the temperature range/limit will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports that identify any deviation from the operational restriction in c)(1) above, and summarize the information listed in a. – e. below. These reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
  - a. each period of time (start time and date, and end time and date) when the average combustion temperature within the thermal oxidizer was outside of the range specified by the manufacturer and/or more than 50 degrees Fahrenheit below the average temperature maintained during the most recent performance test that demonstrated the emissions unit(s) was/were in compliance;
  - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the thermal oxidizer;

- c. a log of the operating time for the capture system, thermal oxidizer, monitoring equipment, and the emissions unit(s);
- d. each incident of deviation described in "a" or "b" (above) where a prompt investigation was not conducted;
- e. each incident of deviation described in "a" or "b" where prompt corrective action, that would bring the emissions unit(s) into compliance and/or the temperature within the thermal oxidizer into compliance with the acceptable range, was determined to be necessary and was not taken; and
- f. each incident of deviation described in "a" or "b" where proper records were not maintained for the investigation and/or the corrective action(s).

(2) See 40 CFR Part 63, Subpart HH (40 CFR 63.760 – 63.779).

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 0.22 tons/m as a rolling, 12-month average.

Applicable Compliance Method:

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

Flash Tank Off Gases:

$33.0693 \text{ lb/hr} * 8,760 \text{ hr/yr} * (1 - 0.99) * 1.1 \text{ SF} * 1 \text{ ton}/2,000 \text{ lb} * 1 \text{ yr}/12 \text{ m} = 0.133 \text{ tons/m}$

Still Vent Emissions:

$20.8971 \text{ lb/hr} * 8,760 \text{ hr/yr} * (1 - 0.99) * 1.1 \text{ SF} * 1 \text{ ton}/2,000 \text{ lb} * 1 \text{ yr}/12 \text{ m} = 0.084 \text{ tons/m}$

Total VOC Emissions:

$0.133 \text{ tons/m} + 0.084 \text{ tons/m} = 0.22 \text{ tons/m}$  as a rolling, 12-month average

Where:

$33.0693 \text{ lb/hr} =$  Flash Tank Off-Gas Hourly emissions determined using GRI-GLYCalc model, Version 3.0 or higher, as submitted in application



20.8971 lb/hr = Still Vent Hourly emissions determined using GRI-GLYCalc model, Version 3.0 or higher, as submitted in application

0.99 = Thermal oxidizer control efficiency, as submitted in the application

1.1 = Safety factor, as submitted in the application

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 glycol circulation rate, natural gas flow rate, VOC destruction efficiency, and the worst case pollutant concentrations from representative gas analysis of the inlet gas from d) above.

If required, compliance shall be demonstrated using the following test method: 40 CFR Part 60, appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

b. Emissions Limitation:

VOC emissions shall not exceed 2.70 TPY.

Applicable Compliance Method:

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

Flash Tank Off Gases:

$$33.0693 \text{ lb/hr} * 8,760 \text{ hr/yr} * (1 - 0.99) * 1.1 \text{ SF} * 1 \text{ ton}/2,000 \text{ lb} +$$

Still Vent Emissions:

$$20.8971 \text{ lb/hr} * 8,760 \text{ hr/yr} * (1 - 0.99) * 1.1 \text{ SF} * 1 \text{ ton}/2,000 \text{ lb} =$$

Total VOC Emissions:

2.70 TPY VOC

Where:

33.0693 lb/hr = Flash Tank Off-Gas Hourly emissions determined using GRI-GLYCalc model, Version 3.0 or higher, as submitted in application



20.8971 lb/hr = Still Vent Hourly emissions determined using GRI-GLYCalc model, Version 3.0 or higher, as submitted in application

0.99 = Thermal oxidizer control efficiency, as submitted in the application

1.1 = Safety factor, as submitted in the application

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 glycol circulation rate, natural gas flow rate, VOC destruction efficiency, and the worst case pollutant concentrations from representative gas analysis of the inlet gas from d) above.

If required, compliance shall be demonstrated using the following test method: 40 CFR Part 60, appendix A, Method 25A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA Southeast District Office.

g) Miscellaneous Requirements

(1) None.