



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

6/14/2016

Certified Mail

Mr. Kijun Hong
Utica Gas Services, LLC-Carrollton Compressor Facility
P.O. Box 54342
Oklahoma City, OK 73154

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0210012002
Permit Number: P0119780
Permit Type: OAC Chapter 3745-31 Modification
County: Carroll

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

Dear Permit Holder:

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

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

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

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

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

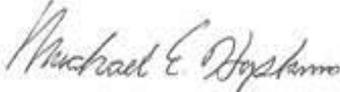
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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

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

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200 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-NEDO; Pennsylvania; West Virginia



FINAL

**Division of Air Pollution Control
Permit-to-Install
for**

Utica Gas Services, LLC-Carrollton Compressor Facility

Facility ID: 0210012002
Permit Number: P0119780
Permit Type: OAC Chapter 3745-31 Modification
Issued: 6/14/2016
Effective: 6/14/2016



Division of Air Pollution Control
Permit-to-Install
for
Utica Gas Services, LLC-Carrollton Compressor Facility

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Authorization

Facility ID: 0210012002
Facility Description: Natural Gas Delivery Point
Application Number(s): A0053469, A0055757
Permit Number: P0119780
Permit Description: Chapter 31 modification to a natural gas compressor station to increase emissions on several units due to throughput increases.
Permit Type: OAC Chapter 3745-31 Modification
Permit Fee: \$3,450.00
Issue Date: 6/14/2016
Effective Date: 6/14/2016

This document constitutes issuance to:

Utica Gas Services, LLC-Carrollton Compressor Facility
2098 Panda Road SE
Carrollton, OH 44615

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

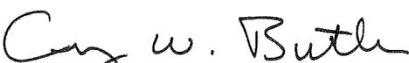
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)963-1200

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: P0119780

Permit Description: Chapter 31 modification to a natural gas compressor station to increase emissions on several units due to throughput increases.

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

Emissions Unit ID: J001
 Company Equipment ID: TL-1
 Superseded Permit Number: P0117080
 General Permit Category and Type: Not Applicable

Emissions Unit ID: P006
 Company Equipment ID: AC4455
 Superseded Permit Number: P0110188
 General Permit Category and Type: Not Applicable

Emissions Unit ID: P014
 Company Equipment ID: FLARE-1
 Superseded Permit Number: P0117080
 General Permit Category and Type: Not Applicable

Emissions Unit ID: P015
 Company Equipment ID: BD
 Superseded Permit Number: P0117080
 General Permit Category and Type: Not Applicable

Emissions Unit ID: P018
 Company Equipment ID: FLARE-2
 Superseded Permit Number: P0117233
 General Permit Category and Type: Not Applicable

Group Name: 400-bbl condensate tanks

| | |
|-----------------------------------|----------------|
| Emissions Unit ID: | T001 |
| Company Equipment ID: | T1 |
| Superseded Permit Number: | P0117233 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | T002 |
| Company Equipment ID: | T2 |
| Superseded Permit Number: | P0117233 |
| General Permit Category and Type: | Not Applicable |
| Emissions Unit ID: | T003 |
| Company Equipment ID: | T3 |
| Superseded Permit Number: | P0117233 |
| General Permit Category and Type: | Not Applicable |

Group Name: 400-bbl produced water tanks

| | |
|-----------------------------------|----------------|
| Emissions Unit ID: | T004 |
| Company Equipment ID: | T4 |
| Superseded Permit Number: | P0117233 |
| General Permit Category and Type: | Not Applicable |



| | |
|----------------------------------|----------------|
| Emissions Unit ID: | T005 |
| Company Equipment ID: | T5 |
| Superseded Permit Number: | P0117233 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | T006 |
| Company Equipment ID: | T6 |
| Superseded Permit Number: | P0117233 |
| General Permit Category andType: | Not Applicable |

Group Name: Baldor generators

| | |
|----------------------------------|----------------|
| Emissions Unit ID: | P016 |
| Company Equipment ID: | GEN-90 |
| Superseded Permit Number: | P0117233 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P017 |
| Company Equipment ID: | GEN-133 |
| Superseded Permit Number: | P0117233 |
| General Permit Category andType: | Not Applicable |

Group Name: Engines post 7/1/07 not OOOO

| | |
|----------------------------------|----------------|
| Emissions Unit ID: | P004 |
| Company Equipment ID: | AC2373 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P005 |
| Company Equipment ID: | AC3229 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P013 |
| Company Equipment ID: | AC1319 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |

Group Name: Engines post 7/1/10 OOOO

| | |
|----------------------------------|----------------|
| Emissions Unit ID: | P007 |
| Company Equipment ID: | AC4456 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P008 |
| Company Equipment ID: | AC4457 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P009 |
| Company Equipment ID: | AC4458 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P010 |
| Company Equipment ID: | AC4459 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |



Final Permit-to-Install
Utica Gas Services, LLC-Carrollton Compressor Facility
Permit Number: P0119780
Facility ID: 0210012002
Effective Date:6/14/2016

| | |
|----------------------------------|----------------|
| Emissions Unit ID: | P011 |
| Company Equipment ID: | AC4460 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |
| Emissions Unit ID: | P012 |
| Company Equipment ID: | AC4461 |
| Superseded Permit Number: | P0110188 |
| General Permit Category andType: | Not Applicable |



Final Permit-to-Install
Utica Gas Services, LLC-Carrollton Compressor Facility
Permit Number: P0119780
Facility ID: 0210012002
Effective Date:6/14/2016

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, Northeast 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, Northeast 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, Northeast 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, Northeast 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, Northeast 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, Northeast 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, Northeast 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
Utica Gas Services, LLC-Carrollton Compressor Facility
Permit Number: P0119780
Facility ID: 0210012002
Effective Date:6/14/2016

B. Facility-Wide Terms and Conditions



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
 - a) None.
2. The Ohio EPA has determined that this facility is subject to the requirements of 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines at Area Sources. Although Ohio EPA has determined that this Generally Available Control Technology NESHAP (GACT) applies, at this time Ohio EPA does not have the authority to enforce this standard. Instead, U.S. 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 U.S. EPA. For more information on the area source rules, please refer to the following U.S. EPA website: <http://www.epa.gov/ttn/atw/area/arearules.html>.
3. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines: P004 – P013, P016, and P017. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.
4. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution: P007 – P012, P018, and T001 – T003. The complete New Source Performance Standards (NSPS) requirements, including the NSPS General Provisions may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the Ohio EPA Northeast District Office.



C. Emissions Unit Terms and Conditions



1. J001, TL-1

Operations, Property and/or Equipment Description:

Emissions from condensate and produced water truck loading.

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) | Fugitive volatile organic compound (VOC) emissions shall not exceed 1.03 ton per month averaged over a twelve-month rolling period. VOC emissions from the flare stack shall not exceed 0.05 ton per month averaged over a twelve-month rolling period. See b)(2)a. through b)(2)d. |

(2) Additional Terms and Conditions

- a. All condensate and produced water loading lines shall be equipped with fittings which are vapor tight.
- b. The delivery vessel hatches shall be closed at all times during the loading of the delivery vessel.
- c. The permittee shall not permit condensate or produced water to be spilled, discarded in sewers, stored in open containers or handled in any other manner that would result in evaporation.
- d. The vapors collected by the vapor collection system shall be vented to the flare at all times the emissions unit is in operation. The flare shall have a minimum destruction efficiency of 98%. See emissions unit P018 for flare requirements.



- c) Operational Restrictions
 - (1) None.
- d) Monitoring and/or Recordkeeping Requirements
 - (1) The permittee shall maintain monthly records of the following information:
 - a. the throughput of condensate for each month, in gallons;
 - b. the throughput of produced water for each month, in gallons;
 - c. the rolling, 12-month summation of the condensate throughput, in gallons; and
 - d. the rolling, 12-month summation of the produced water throughput, in gallons.
- e) Reporting Requirements
 - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- f) Testing Requirements
 - (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:

Fugitive VOC emissions shall not exceed 1.03 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

VOC emissions shall be based on multiplying loading loss factors (*L), calculated individually for both the condensate and produced water, by the rolling, 12-month summations of the condensate and produced water throughputs, in tons, divided by 2000 lbs/ton and 12 months/yr.

The loading loss factor was derived using AP-42, Section 5.2, "Loading Loss Equation".

$*L = 12.46 \text{ SPM/T} (1 - CE/100)$

where:
L = loading loss, pounds per 1000 gallons loaded;
S = saturation factor, 1.45 for splash fill;
P = vapor pressure of liquid loaded, in psia (condensate = 6.9301, produced water = 0.1999);



M = molecular weight of vapor, in lb/lb-mol (condensate = 60, produced water = 20.8938);
T = temperature of bulk liquid loaded, in °R (condensate and produced water = 509.7); and
CE = collection efficiency of trucks not passing annual leak tests, from AP-42, Section 5.2, "Transportation and Marketing of Petroleum Liquids" (6/08) = 70%.
A safety factor of 10% was also added to the annual emission rate to account for potential fluctuations in gas composition.

b. Emission Limitation:

VOC emissions from the flare stack shall not exceed 0.05 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

VOC emissions shall be based on multiplying loading loss factors (*L), calculated individually for both the condensate and produced water, by the rolling, 12-month summations of the condensate and produced water throughputs, in tons, divided by 2000 lbs/ton and 12 months/yr.

The loading loss factor was derived using AP-42, Section 5.2, "Loading Loss Equation".

$$L_L = 12.46 \text{ SPM/T} (CE/100)(1-DE/100)$$

where:

L = loading loss, pounds per 1000 gallons loaded;

S = saturation factor, 1.45 for splash fill;

P = vapor pressure of liquid loaded, in psia (condensate = 6.9301, produced water = 0.1999);

M = molecular weight of vapor, in lb/lb-mol (condensate = 60, produced water = 20.8938);

T = temperature of bulk liquid loaded, in °R (condensate and produced water = 509.7);

CE = collection efficiency of trucks not passing annual leak tests, from AP-42, Section 5.2, "Transportation and Marketing of Petroleum Liquids" (6/08) = 70%;
and

DE = destruction efficiency of flare (P018) = 98%.

g) Miscellaneous Requirements

(1) None.



2. Emissions Unit Group -Engines post 7/1/07 not OOOO: P004, P005

EU ID Operations, Property and/or Equipment Description

- P004 1,775 HP natural gas-fired Caterpillar G3606 engine #1 (manufactured 2/18/08).
- P005 1,775 HP natural gas-fired Caterpillar G3606 engine #2 (manufactured 3/11/08).

All engines are 4-stroke, lean burn, natural gas-fired, spark ignition engines controlled by a catalytic oxidation system with 90% control for carbon monoxide and 70% control for volatile organic compounds.

- 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 | Carbon monoxide (CO) emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY. Nitrogen oxides (NO _x) emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY. Volatile organic compound (VOC) emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde). Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11 and 40 CFR Part 60, Subpart JJJJ. See b)(2)a. |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|--|--|
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-17-07(A)(1) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-11(B)(5)(b) | PE shall not exceed 0.062 pound/million Btu of actual heat input. |
| e. | OAC rule 3745-18-06 | This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A). |
| f. | 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248) [In accordance with 40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1, this emissions unit is a 1,775 HP, natural gas-fired, stationary spark internal combustion engine manufactured after July 1, 2007 that is located at a new natural gas compressor station and is subject to the emission limitations and control measures specified in this section.] | NO _x emissions shall not exceed 2.0 g/hp-hr and 160 ppmvd at 15% oxygen (O ₂). CO emissions shall not exceed 4.0 g/hp-hr and 540 ppmvd at 15% O ₂ . VOC emissions shall not exceed 1.0 g/hp-hr and 86 ppmvd at 15% O ₂ . [40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1] See b)(2)c, c)(2), d)(2), e)(4), e)(5) and f)(2). |
| g. | 40 CFR Part 60.1 – 60.19 (40 CFR 60.4246) | Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 60.19 apply. |
| h. | 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6590(c)(1)) | A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ. |
| i. | ORC 3704.03(F)(4)(d) | See d)(3), d)(4), d)(5), d)(6) and e)(6). |

(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 is 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, these emission limitations/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, CO and VOC emissions from this air contaminant source since the controlled potentials to emit for NO_x, CO and VOC are less than 10 tons/yr.

- c. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--------------------------|
| 60.4236(b) | Installation deadlines |
| 60.4243(b) | Compliance demonstration |

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--|
| 60.4234 | Duration of compliance with emission standards |
| 60.4243(b) | Maintenance requirements |
| 60.4243(e) | Alternative fuel |
| 60.4243(g) | AFR controllers |

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.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|-------------------------------------|--|
| 60.4245(a)(1) | Keeping records of notifications and supporting documentation |
| 60.4243(b)(2)(ii) and 60.4245(a)(2) | Keeping records of maintenance plan and records of maintenance conducted on the engine |

- (3) The permit-to-install (PTI) application for this/these emissions unit(s), P004 and P005, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:
- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
 - b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
 - c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):
$$\text{TLV}/10 \times 8/X \times 5/Y = 4 \text{ TLV}/XY = \text{MAGLC}$$
 - d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: formaldehyde
TLV (mg/m³): 0.37
Maximum Hourly Emission Rate (lbs/hr): 1.7
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 6.77
MAGLC (ug/m³): 8.77

The permittee, has demonstrated that emission of formaldehyde, from emissions unit(s) P004 and P005, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials*, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials*, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

*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.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
 - (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- 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.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
 - (3) 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) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:

| | |
|------------|--|
| 60.4245(c) | Must submit an initial notification |
| 60.4245(d) | Must submit performance test copies within 60 days after the test has been completed |

- (5) The permittee shall include any changes made to a parameter or value used in the dispersion model that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

CO emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.28 g/BHP-hr (the manufacturer supplied emission factor, including the 90% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.18 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

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

b. Emission Limitation:

NO_x emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY.



Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.50 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit).

The TPY emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (1.96 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

c. Emission Limitation:

VOC emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde).

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.19 g/BHP-hr (the manufacturer supplied emission factor, including the 70% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.82 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A.

d. Emission Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitations:

NO_x emissions shall not exceed 2.0 g/HP-hr and 160 ppmvd at 15% O₂.

CO emissions shall not exceed 4.0 g/HP-hr and 540 ppmvd at 15% O₂.

VOC emissions shall not exceed 1.0 g/HP-hr and 86 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ Table 2 and the following requirements:

a. Conduct performance testing in the following manner:

i. if the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO_x and CO, 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. Subsequent performance tests shall be conducted every 8,760 hours or 3 years, whichever comes first.

b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.

c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office.



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, Northeast District Office's refusal to accept the results of the emission test(s).

- e. Personnel from the Ohio EPA, Northeast District Office 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.
- f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office 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 Ohio EPA, Northeast District Office.

g) Miscellaneous Requirements

- (1) None.



3. P006, AC4455 Not OOOO, 1775 HP natural gas-fired Caterpillar G3606 engine #4 (manufactured 12/3/10).

Operations, Property and/or Equipment Description:

1,775 HP natural gas-fired Caterpillar G3606 engine #4 equipped with an oxidation catalyst

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 | Carbon monoxide (CO) emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY. Nitrogen oxides (NO _x) emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY. Volatile organic compound (VOC) emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde). Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average. The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11 and 40 CFR Part 60, Subpart JJJJ. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |

| | | |
|----|--|---|
| c. | OAC rule 3745-17-07(A)(1) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-11(B)(5)(b) | PE shall not exceed 0.062 pound/million Btu of actual heat input. |
| e. | OAC rule 3745-18-06 | This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A). |
| f. | 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248) [In accordance with 40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1, this emissions unit is a 1,775 HP, natural gas-fired, stationary spark internal combustion engine manufactured after July 1, 2010 that is located at a new natural gas compressor station and is subject to the emission limitations and control measures specified in this section.] | NO _x emissions shall not exceed 1.0 g/hp-hr and 82 ppmvd at 15% oxygen (O ₂). CO emissions shall not exceed 2.0 g/hp-hr and 270 ppmvd at 15% O ₂ . VOC emissions shall not exceed 0.7 g/hp-hr and 60 ppmvd at 15% O ₂ . [40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1] See b)(2)c, c)(2), d)(2), e)(4), e)(5) and f)(2). |
| g. | 40 CFR Part 60.1 – 60.19 (40 CFR 60.4246) | Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 60.19 apply. |
| h. | 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6590(c)(1)) | A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ. |
| i. | ORC 3704.03(F)(4)(d) | See d)(3), d)(4), d)(5), d)(6) and e)(6). |

(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 is 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, these emission limitations/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, CO and VOC emissions from this air contaminant source since the controlled potentials to emit for NO_x, CO and VOC are less than 10 tons/yr.

- c. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--------------------------|
| 60.4236(b) | Installation deadlines |
| 60.4243(b) | Compliance demonstration |

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--|
| 60.4234 | Duration of compliance with emission standards |
| 60.4243(b) | Maintenance requirements |
| 60.4243(e) | Alternative fuel |
| 60.4243(g) | AFR controllers |

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.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|-------------------------------------|--|
| 60.4245(a)(1) | Keeping records of notifications and supporting documentation |
| 60.4243(b)(2)(ii) and 60.4245(a)(2) | Keeping records of maintenance plan and records of maintenance conducted on the engine |

(3) The permit-to-install (PTI) application for this/these emissions unit(s), P006, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: formaldehyde
 TLV (mg/m3): 0.37
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.77

MAGLC (ug/m3): 8.77

The permittee, has demonstrated that emission of formaldehyde, from emissions unit(s) P006, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials*, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials*, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

*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.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)



modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- 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.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
 - (3) 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) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:
- | | |
|------------|--|
| 60.4245(c) | Must submit an initial notification |
| 60.4245(d) | Must submit performance test copies within 60 days after the test has been completed |
- (5) The permittee shall include any changes made to a parameter or value used in the dispersion model that was used to demonstrate compliance with the Toxic Air



Contaminant Statue, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

(1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

CO emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.28 g/BHP-hr (the manufacturer supplied emission factor, including the 90% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.18 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

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

b. Emission Limitation:

NO_x emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.50 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit).

The TPY emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (1.96 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if



compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

c. Emission Limitation:

VOC emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde).

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.19 g/BHP-hr (the manufacturer supplied emission factor, including the 70% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.82 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A.

d. Emission Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in

the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitations:

NO_x emissions shall not exceed 1.0 g/HP-hr and 82 ppmvd at 15% O₂.
CO emissions shall not exceed 2.0 g/HP-hr and 270 ppmvd at 15% O₂.
VOC emissions shall not exceed 0.7 g/HP-hr and 60 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ Table 2 and the following requirements:

a. Conduct performance testing in the following manner:

i. if the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO_x and CO, 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. Subsequent performance tests shall be conducted every 8,760 hours or 3 years, whichever comes first.

b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.

c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).



- e. Personnel from the Ohio EPA, Northeast District Office 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.
 - f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office 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 Ohio EPA, Northeast District Office.
- g) Miscellaneous Requirements
- (1) None.



4. Emissions Unit Group -Engines post 7/1/10 OOOO: P007, P008, P009, P010, P011, P012

| EU ID | Operations, Property and/or Equipment Description |
|-------|---|
| P007 | 1,775 HP natural gas-fired Caterpillar G3606 engine #5 equipped with an oxidation catalyst |
| P008 | 1,775 HP natural gas-fired Caterpillar G3606 engine #6 equipped with an oxidation catalyst |
| P009 | 1,775 HP natural gas-fired Caterpillar G3606 engine #7 equipped with an oxidation catalyst |
| P010 | 1,775 HP natural gas-fired Caterpillar G3606 engine #8 equipped with an oxidation catalyst |
| P011 | 1,775 HP natural gas-fired Caterpillar G3606 engine #9 equipped with an oxidation catalyst |
| P012 | 1,775 HP natural gas-fired Caterpillar G3606 engine #10 equipped with an oxidation catalyst |

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 | <p>Carbon monoxide (CO) emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY.</p> <p>Nitrogen oxides (NO_x) emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY.</p> <p>Volatile organic compound (VOC) emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde).</p> <p>Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.</p> <p>Compliance with 40 CFR Part 60, Subpart OOOO.</p> <p>The requirements of this rule also include</p> |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|---|
| | | <p>compliance with the requirements of OAC rule 3745-17-11 and 40 CFR Part 60, Subpart JJJJ.</p> <p>See b)(2)a.</p> |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-17-07(A)(1) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-11(B)(5)(b) | PE shall not exceed 0.062 pound/million Btu of actual heat input. |
| e. | OAC rule 3745-18-06 | This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A). |
| f. | <p>40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248)</p> <p>[In accordance with 40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1, this emissions unit is a 1,775 HP, natural gas-fired, stationary spark internal combustion engine manufactured after July 1, 2010 that is located at a new natural gas compressor station and is subject to the emission limitations and control measures specified in this section.]</p> | <p>NO_x emissions shall not exceed 1.0 g/hp-hr and 82 ppmvd at 15% oxygen (O₂).</p> <p>CO emissions shall not exceed 2.0 g/hp-hr and 270 ppmvd at 15% O₂.</p> <p>VOC emissions shall not exceed 0.7 g/hp-hr and 60 ppmvd at 15% O₂.</p> <p>[40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1]</p> <p>See b)(2)c, c)(2), d)(2), e)(4), e)(5) and f)(2).</p> |
| g. | 40 CFR Part 60.1 – 60.19 (40 CFR 60.4246) | Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 60.19 apply. |
| h. | <p>40 CFR Part 60, Subpart OOOO</p> <p>In accordance with 40 CFR 63.5365(c), this emissions unit is a reciprocating compressor subject to the Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution.</p> <p>40 CFR 60.5385</p> | <p>The reciprocating compressor, constructed, modified, or reconstructed after 8/23/11 and located between the wellhead and the point of custody transfer to the natural transmission and storage segment, shall meet the requirements of 40 CFR Part 60, Subpart OOOO no later than 10/15/12 or upon initial startup following that date; and by tracking either the hours of operation or</p> |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|---|
| | | number of months between compressor rod packing replacement. See c)(3), d)(3), e)(4) and e)(6). |
| i. | 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6590(c)(1)) | A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ. |
| j. | ORC 3704.03(F)(4)(d) | See d)(4), d)(5), d)(6), d)(7) and e)(7). |

(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 is 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, these emission limitations/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, CO and VOC emissions from this air contaminant source since the controlled potentials to emit for NO_x, CO and VOC are less than 10 tons/yr.

- c. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--------------------------|
| 60.4236(b) | Installation deadlines |
| 60.4243(b) | Compliance demonstration |

c) Operational Restrictions

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



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

| | |
|------------|--|
| 60.4234 | Duration of compliance with emission standards |
| 60.4243(b) | Maintenance requirements |
| 60.4243(e) | Alternative fuel |
| 60.4243(g) | AFR controllers |

- (3) Beginning on 10/15/12 or upon initial startup if the reciprocating compressor is installed after this date, the permittee shall replace the reciprocating compressor rod packing every 26,000 hours of operation; or if not tracking the hours of operation, within 36 months following 10/15/12 or the date of startup (whichever is later), and every 36 months from the date of the last rod packing replacement.

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.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|-------------------------------------|--|
| 60.4245(a)(1) | Keeping records of notifications and supporting documentation |
| 60.4243(b)(2)(ii) and 60.4245(a)(2) | Keeping records of maintenance plan and records of maintenance conducted on the engine |

- (3) Beginning on 10/15/12 or upon initial startup if the reciprocating compressor is installed after this date, the permittee shall either continuously monitor and record the number of hours of operation or track the number of months since the last rod packing replacement. Records shall be maintained of the date and time of the replacement of the compressor rod packing for each reciprocating compressor in operation at the facility. Records of deviations from the 26,000 hours or 36 months of operation between rod packing replacements shall also be maintained. These records shall be retained for at least 5 years.

- (4) The permit-to-install (PTI) application for this/these emissions unit(s), P007 – P012, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: formaldehyde
 TLV (mg/m3): 0.37
 Maximum Hourly Emission Rate (lbs/hr): 1.7
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.77
 MAGLC (ug/m3): 8.77

The permittee, has demonstrated that emission of formaldehyde, from emissions unit(s) P007 – P012, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (5) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can

affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:

- a. changes in the composition of the materials used or the use of new materials*, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
- b. changes in the composition of the materials, or use of new materials*, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
- c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

*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.

- (6) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
 - a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s) modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);
 - b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and



- d. the documentation of the initial evaluation of compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (7) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the “Toxic Air Contaminant Statute”, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- 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.
- (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
- (3) 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) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:

| | |
|------------|--|
| 60.4245(c) | Must submit an initial notification |
| 60.4245(d) | Must submit performance test copies within 60 days after the test has been completed |

- (5) The permittee shall submit an initial annual report within 30 days after the end of the initial compliance period, or no later than 11/14/13 or within one year and 30 days of startup, whichever is later. Subsequent annual reports are due on the same date each year following the initial report. The annual reports shall include the following information:
 - a. company name and address of the affected facility;
 - b. identification of each affected facility included in the annual report*;
 - c. beginning and ending dates of the reporting period;
 - d. the identification of each reciprocating compressor;
 - e. the cumulative number of hours of operation or the number of months of operation since initial startup of the reciprocating compressor, since the effective

date of the NSPS, or since the previous reciprocating compressor rod packing replacement, whichever is later;

- f. records of any deviations from the 26,000 hours or 36 months of operation between rod packing replacements; and
- g. certification by the responsible official of truth, accuracy, and completeness.

* One report for multiple affected facilities may be submitted provided the report contains all of the information required and clearly identified for each.

- (6) The permittee shall include any changes made to a parameter or value used in the dispersion model that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

- (1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation:

CO emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.28 g/BHP-hr (the manufacturer supplied emission factor, including the 90% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.18 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

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



b. Emission Limitation:

NO_x emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.50 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit).

The TPY emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (1.96 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

c. Emission Limitation:

VOC emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde).

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.19 g/BHP-hr (the manufacturer supplied emission factor, including the 70% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.82 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A.

d. Emission Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.



Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitations:

NO_x emissions shall not exceed 1.0 g/HP-hr and 82 ppmvd at 15% O₂.
CO emissions shall not exceed 2.0 g/HP-hr and 270 ppmvd at 15% O₂.
VOC emissions shall not exceed 0.7 g/HP-hr and 60 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ Table 2 and the following requirements:

a. Conduct performance testing in the following manner:

i. if the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO_x and CO, 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. Subsequent performance tests shall be conducted every 8,760 hours or 3 years, whichever comes first.

b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.

c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and



under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.

- d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).
- e. Personnel from the Ohio EPA, Northeast District Office 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.
- f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office 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 Ohio EPA, Northeast District Office.

g) **Miscellaneous Requirements**

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



5. P013, AC1319 Not OOOO, 1,775 HP natural gas-fired Caterpillar G3606 engine #3 (manufactured 2/13/02).

Operations, Property and/or Equipment Description:

1,775 HP natural gas-fired Caterpillar G3606 engine #3 equipped with an oxidation catalyst

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 | <p>Carbon monoxide (CO) emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY.</p> <p>Nitrogen oxides (NO_x) emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY.</p> <p>Volatile organic compound (VOC) emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde).</p> <p>Visible particulate emissions (PE) from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11 and 40 CFR Part 60, Subpart JJJJ.</p> <p>See b)(2)a.</p> |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |

| | | |
|----|--|--|
| c. | OAC rule 3745-17-07(A)(1) | The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3). |
| d. | OAC rule 3745-17-11(B)(5)(b) | PE shall not exceed 0.062 pound/million Btu of actual heat input. |
| e. | OAC rule 3745-18-06 | This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A). |
| f. | 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248) [In accordance with 40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1, this emissions unit is a 1,775 HP, natural gas-fired, stationary spark internal combustion engine that is located at a new natural gas compressor station and is subject to the emission limitations and control measures specified in this section.] | NO _x emissions shall not exceed 1.0 g/hp-hr and 82 ppmvd at 15% oxygen (O ₂). CO emissions shall not exceed 2.0 g/hp-hr and 270 ppmvd at 15% O ₂ . VOC emissions shall not exceed 0.7 g/hp-hr and 60 ppmvd at 15% O ₂ . This emissions unit is accepting applicability of Subpart JJJJ for engines manufactured after 7/1/10. [40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1] See b)(2)c, c)(2), d)(2), e)(4), e)(5) and f)(2). |
| g. | 40 CFR Part 60.1 – 60.19 (40 CFR 60.4246) | Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 60.19 apply. |
| h. | 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6590(c)(1)) | A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ. |
| i. | ORC 3704.03(F)(4)(d) | See d)(3), d)(4), d)(5), d)(6) and e)(6). |

(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 is 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, these emission limitations/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, CO and VOC emissions from this air contaminant source since the controlled potentials to emit for NO_x, CO and VOC are less than 10 tons/yr.

- c. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--------------------------|
| 60.4236(b) | Installation deadlines |
| 60.4243(b) | Compliance demonstration |

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--|
| 60.4234 | Duration of compliance with emission standards |
| 60.4243(b) | Maintenance requirements |
| 60.4243(e) | Alternative fuel |
| 60.4243(g) | AFR controllers |

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.
- (2) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|-------------------------------------|--|
| 60.4245(a)(1) | Keeping records of notifications and supporting documentation |
| 60.4243(b)(2)(ii) and 60.4245(a)(2) | Keeping records of maintenance plan and records of maintenance conducted on the engine |

(3) The permit-to-install (PTI) application for this/these emissions unit(s), P013, was evaluated based on the actual materials and the design parameters of the emissions unit's(s') exhaust system, as specified by the permittee. The "Toxic Air Contaminant Statute", ORC 3704.03(F), was applied to this/these emissions unit(s) for each toxic air contaminant listed in OAC rule 3745-114-01, using data from the permit application; and modeling was performed for each toxic air contaminant(s) emitted at over one ton per year using an air dispersion model such as SCREEN3, AERMOD, or ISCST3, or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the approved air dispersion model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as described in the Ohio EPA guidance document entitled "Review of New Sources of Air Toxic Emissions, Option A", as follows:

- a. the exposure limit, expressed as a time-weighted average concentration for a conventional 8-hour workday and a 40-hour workweek, for each toxic compound(s) emitted from the emissions unit(s), (as determined from the raw materials processed and/or coatings or other materials applied) has been documented from one of the following sources and in the following order of preference (TLV was and shall be used, if the chemical is listed):
 - i. threshold limit value (TLV) from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; or
 - ii. STEL (short term exposure limit) or the ceiling value from the American Conference of Governmental Industrial Hygienists (ACGIH) "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices"; the STEL or ceiling value is multiplied by 0.737 to convert the 15-minute exposure limit to an equivalent 8-hour TLV.
- b. The TLV is divided by ten to adjust the standard from the working population to the general public (TLV/10).
- c. This standard is/was then adjusted to account for the duration of the exposure or the operating hours of the emissions unit(s), i.e., "X" hours per day and "Y" days per week, from that of 8 hours per day and 5 days per week. The resulting calculation was (and shall be) used to determine the Maximum Acceptable Ground-Level Concentration (MAGLC):

$$TLV/10 \times 8/X \times 5/Y = 4 TLV/XY = MAGLC$$

- d. The following summarizes the results of dispersion modeling for the significant toxic contaminants (emitted at 1 or more tons/year) or "worst case" toxic contaminant(s):

Toxic Contaminant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 1.7

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 6.77

MAGLC (ug/m3): 8.77

The permittee, has demonstrated that emission of formaldehyde, from emissions unit(s) P013, is calculated to be less than eighty per cent of the maximum acceptable ground level concentration (MAGLC); any new raw material or processing agent shall not be applied without evaluating each component toxic air contaminant in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F).

- (4) Prior to making any physical changes to or changes in the method of operation of the emissions unit(s), that could impact the parameters or values that were used in the predicted 1-hour maximum ground-level concentration, the permittee shall re-model the change(s) to demonstrate that the MAGLC has not been exceeded. Changes that can affect the parameters/values used in determining the 1-hour maximum ground-level concentration include, but are not limited to, the following:
- a. changes in the composition of the materials used or the use of new materials*, that would result in the emission of a new toxic air contaminant with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled;
 - b. changes in the composition of the materials, or use of new materials*, that would result in an increase in emissions of any toxic air contaminant listed in OAC rule 3745-114-01, that was modeled from the initial (or last) application; and
 - c. physical changes to the emissions unit(s) or its/their exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Toxic Air Contaminant Statute" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to a non-restrictive change to a parameter or process operation, where compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), has been documented. If the change(s) meet(s) the definition of a "modification", the permittee shall apply for and obtain a final PTI prior to the change. The Director may consider any significant departure from the operations of the emissions unit, described in the permit application, as a modification that results in greater emissions than the emissions rate modeled to determine the ground level concentration; and he/she may require the permittee to submit a permit application for the increased emissions.

*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.

- (5) The permittee shall collect, record, and retain the following information for each toxic evaluation conducted to determine compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F):
- a. a description of the parameters/values used in each compliance demonstration and the parameters or values changed for any re-evaluation of the toxic(s)



modeled (the composition of materials, new toxic contaminants emitted, change in stack/exhaust parameters, etc.);

- b. the Maximum Acceptable Ground-Level Concentration (MAGLC) for each significant toxic contaminant or worst-case contaminant, calculated in accordance with the "Toxic Air Contaminant Statute", ORC 3704.03(F);
 - c. a copy of the computer model run(s), that established the predicted 1-hour maximum ground-level concentration that demonstrated the emissions unit(s) to be in compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), initially and for each change that requires re-evaluation of the toxic air contaminant emissions; and
 - d. the documentation of the initial evaluation of compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), and documentation of any determination that was conducted to re-evaluate compliance due to a change made to the emissions unit(s) or the materials applied.
- (6) The permittee shall maintain a record of any change made to a parameter or value used in the dispersion model, used to demonstrate compliance with the "Toxic Air Contaminant Statute", ORC 3704.03(F), through the predicted 1-hour maximum ground-level concentration. The record shall include the date and reason(s) for the change and if the change would increase the ground-level concentration.
- 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.
 - (2) The permittee shall submit an annual Permit Evaluation Report (PER) to the Ohio EPA. The PER must be completed electronically and submitted via the Ohio EPA eBusiness Center: Air Services by the due date identified in the Authorization section of this permit. The PER shall cover a reporting period of no more than 12-months for each air contaminant source identified in this permit.
 - (3) 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) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:
- | | |
|------------|--|
| 60.4245(c) | Must submit an initial notification |
| 60.4245(d) | Must submit performance test copies within 60 days after the test has been completed |
- (5) The permittee shall include any changes made to a parameter or value used in the dispersion model that was used to demonstrate compliance with the Toxic Air Contaminant Statute, ORC 3704.03(F), through the predicted 1-hour maximum ground-

level concentration in the annual Permit Evaluation Report (PER). If no changes to the emissions, emissions unit(s) or the exhaust stack have been made, then the report shall include a statement to this effect.

f) Testing Requirements

(1) Compliance with the emissions limitations and/or control requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:

CO emissions from the stack serving this emissions unit shall not exceed 1.18 lbs/hr and 5.18 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.28 g/BHP-hr (the manufacturer supplied emission factor, including the 90% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable CO emission limitation (1.18 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

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

b. Emission Limitation:

NO_x emissions from the stack serving this emissions unit shall not exceed 1.96 lbs/hr and 8.56 TPY.

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.50 g/BHP-hr (the manufacturer supplied emission factor) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit).

The TPY emission limitation was developed by multiplying the short-term allowable NO_x emission limitation (1.96 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.



If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7E.

c. Emission Limitation:

VOC emissions from the stack serving this emissions unit shall not exceed 0.82 lb/hr and 3.59 TPY (not including formaldehyde).

Applicable Compliance Method:

Compliance with the hourly emission limitation above shall be determined by dividing 0.19 g/BHP-hr (the manufacturer supplied emission factor, including the 70% control efficiency of the catalytic converter) by 454 g/lb, and then multiplying by 1,775 brake-horsepower (the maximum power output rating of this unit). A safety factor of 10% was also added to the hourly emission rate to account for potential fluctuations in gas composition.

The TPY emission limitation was developed by multiplying the short-term allowable VOC emission limitation (0.82 lb/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance is demonstrated with the annual emission limitation.

If required, compliance with the hourly emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 18, 25 or 25A.

d. Emission Limitation:

Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

e. Emission Limitation:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).



If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

f. Emission Limitations:

NO_x emissions shall not exceed 2.0 g/HP-hr and 160 ppmvd at 15% O₂.
CO emissions shall not exceed 4.0 g/HP-hr and 540 ppmvd at 15% O₂.
VOC emissions shall not exceed 1.0 g/HP-hr and 86 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ Table 2 and the following requirements:

a. Conduct performance testing in the following manner:

i. if the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO_x and CO, 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. Subsequent performance tests shall be conducted every 8,760 hours or 3 years, whichever comes first.

b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.

c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.

d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).

e. Personnel from the Ohio EPA, Northeast District Office 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.

- f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office 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 Ohio EPA, Northeast District Office.

g) Miscellaneous Requirements

- (1) None.

6. P014, FLARE-1

Operations, Property and/or Equipment Description:

2.978 mmBtu/hr enclosed flare (controlling the dehydration units, post-condenser emissions and providing back-up control for the vapor recovery unit or for when the flash gas compressor is down)

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 | Nitrogen oxides (NO _x) emissions shall not exceed 0.07 ton per month averaged over a twelve-month rolling period. Carbon monoxide (CO) emissions shall not exceed 0.40 ton per month averaged over a twelve-month rolling period. See b)(2)a., c)(1) and c)(2). |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | OAC rule 3745-17-07(A) | See b)(2)c. |
| d. | OAC rule 3745-17-11(B) | See b)(2)d. |

(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 is 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 emission limits/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x and CO emissions from this air contaminant source since the uncontrolled potential to emit for NO_x and CO is less than 10 tons/yr.

- c. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- d. The uncontrolled mass rate of PE from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The flare shall be designed and operated as follows:
 - a. The flare shall be operated with a 98% destruction efficiency.
 - b. The flare shall be operated at all times when emissions may be vented to it.
 - c. There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall properly install, operate, and maintain a pressure sensor and flame detection device to monitor the need for a flame and presence of a flame, respectively, when the emissions unit is in operation. The monitoring device and any recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manuals.
- (2) The permittee shall record the following information each day for the flare and process operations:
 - a. the operating times for the flare and monitoring equipment.
- (3) The permittee shall maintain records of each day a fuel other than natural gas is 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, except during an emergency. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. all periods of time during which the pressure sensor and/or flame detection device were not functioning properly or the flare was not maintained as required in this permit;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

- (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.

f) Testing Requirements

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

a. Emission Limitation:

NO_x emissions shall not exceed 0.07 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

The ton per month emission limitation averaged over a 12-month rolling period was established by multiplying an emission factor from AP-42, Table 13.5-1 (revised 1/95), of 0.068 lb NO_x/mmBtu by the maximum heat input rate of 2.978 mmBtu/hr, multiplied by 8,760 hours in a year, and divided by 12 months per year and 2000 lbs per ton.



If required, compliance with the NO_x emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

b. Emission Limitation:

CO emissions shall not exceed 0.40 ton per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

The ton per month emission limitation averaged over a 12-month rolling period was established by multiplying an emission factor from AP-42, Table 13.5-1 (revised 1/95), of 0.37 lb CO/mmBtu by the maximum heat input rate of 2.978 mmBtu/hr, multiplied by 8,760 hours in a year, and divided by 12 months per year and 2000 lbs per ton.

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

c. Emission Limitation:

There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance with the visible particulate emissions limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

d. Emission Limitation:

The flare shall be operated with at least 98% destruction efficiency.

Applicable Compliance Method:

If the flare complies with the control requirements specified in c)(2)b and c)(2)c, compliance with the 98% control efficiency requirement shall be assumed.

g) Miscellaneous Requirements

- (1) None.



7. P015, BD

Operations, Property and/or Equipment Description:

Uncontrolled compressor maintenance blowdown releases from periodic maintenance blowdown activities from equipment in natural gas service

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) | Volatile organic compound (VOC) emissions shall not exceed 3.24 tons per month averaged over a twelve-month rolling period. See c)(1). |

(2) Additional Terms and Conditions

a. None.

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 monthly records of the following information:

- a. number of compressor blowdown events;
- b. mole % of each VOC component in the gas stream using a representative analysis;
- c. the volume of gas emitted from all compressor blowdown events for each month, in scf; and



- d. the rolling, 12-month summation of the volume of gas emitted from all compressor blowdown events, in scf.
- e) Reporting Requirements
 - (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- 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 3.24 tons per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

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

$$\begin{aligned} \text{VOC (tons/month)} &= \text{sum of the following for each VOC component:} \\ &= [\text{molecular weight} \times ((\text{volume of gas emitted/month}) \times \\ &\quad (\text{mole \% of each VOC component/month})) / \text{molar volume} \\ &\quad \text{conversion}] \times (1 \text{ ton}/2,000 \text{ pounds}) \end{aligned}$$

where:
molecular weight = constant, in lb/lb-mole;
volume of gas emitted/month = from records specified in d)(1)c, in scf;
mole % of each VOC component/month = from analysis required in d)(1)b, in %;
and
molar volume conversion = 379.4 scf/lb-mole, at 60 deg F and 1 atm.
- g) Miscellaneous Requirements
 - (1) None.

8. Emissions Unit Group -Baldor generators: P016, P017

| EU ID | Operations, Property and/or Equipment Description |
|--------------|---|
| P016 | 605 HP (4.41 MMBtu/hr) natural gas fired 4 stroke - rich burn, NSCR Generator #1 equipped with a NSCR catalyst to control NOx, CO, VOC, and HAP emissions |
| P017 | 605 HP (4.41 MMBtu/hr) natural gas fired 4 stroke - rich burn, NSCR Generator #2 equipped with a NSCR catalyst to control NOx, CO, VOC, and HAP emissions |

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
- (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
- (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|--|
| a. | OAC rule 3745-31-05(A)(3) June 30, 2008 | The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart JJJJ. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(a)(ii) June 30, 2008 | The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO, NOx and VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year taking into account the federally enforceable rule limits of 2.0 g/hp-hr of CO, 1.0 g/hp-hr of NO _x and 0.7 g/hp-hr of VOC under 40 CFR Part 60, Subpart JJJJ. The BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the PE from this air contaminant source since the uncontrolled potential to emit for PE is less than 10 tons/year. See b)(2)b. |
| c. | OAC rule 3745-17-07(A) | Visible PE from the stack serving each emissions unit shall not exceed 20% opacity, as a 6-minute average. |

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|---|
| | | The emission limitation specified by this rule shall become effective once U.S. EPA approves the December 1, 2006 version of OAC rule 3745-31-05, as part of the State Implementation Plan. |
| d. | OAC rule 3745-17-11(B) | PE shall not exceed 0.062 lb/mmBtu of actual heat input. |
| e. | OAC rule 3745-18-06 | These emissions units are exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(A). |
| f. | 40 CFR Part 60, Subpart JJJJ (40 CFR 60.4230 – 60.4248) [In accordance with 40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1, this emissions unit is a 605 HP, natural gas-fired, stationary spark internal combustion rich burn engine manufactured after January 1, 2009 that is located at a new natural gas compressor station and is subject to the emission limitations and control measures specified in this section.] | NO _x emissions shall not exceed 1.0 g/hp-hr and 82 ppmvd at 15% oxygen (O ₂). CO emissions shall not exceed 2.0g/hp-hr and 270 ppmvd at 15% O ₂ . VOC emissions shall not exceed 0.7 g/hp-hr and 60 ppmvd at 15% O ₂ . [40 CFR Part 60.4233(e) and 40 CFR Part 60, Subpart JJJJ, Table 1] See b)(2)c., c)(4), d)(7), e)(3), e)(4) and f)(2). |
| g. | 40 CFR Part 60.1 – 60.19 (40 CFR 60.4246) | Table 3 to Subpart JJJJ of 40 CFR Part 60 – Applicability of General Provisions to Subpart JJJJ shows which part of the General Provisions in 40 CFR Part 60.1 – 60.19 apply. |
| h. | 40 CFR Part 63 Subpart ZZZZ (40 CFR 63.6590(c)(1)) | A new or reconstructed area source operating in compliance with 40 CFR Part 60, Subpart JJJJ is the demonstration of compliance for 40 CFR Part 63, Subpart ZZZZ. |

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(2)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.



- c. The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|--|
| 60.4236(b) | Deadlines for importing or installing stationary SI ICE produced in previous model years |
| 60.4243(b) | Compliance demonstration for certified and non-certified engines |

c) Operational Restrictions

- (1) The permittee shall install and operate a generator with a NSCR catalyst for the control of CO, NO_x and VOC emissions whenever this emissions unit is in operation and shall maintain the generator in accordance with the manufacturer's recommendations, instructions, and/or operating manual(s), with any modifications deemed necessary by the permittee.
- (2) In the event the generator is not operating in accordance with the manufacturer's recommendations, instructions, or operating manual, with any modifications deemed necessary by the permittee, the generator shall be expeditiously repaired or otherwise returned to these documented operating conditions.
- (3) The permittee shall burn only natural gas in this emissions unit.
- (4) The permittee shall comply with the applicable restrictions of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|------------|---|
| 60.4234 | Duration of compliance with emission standards |
| 60.4237(a) | For emergency engines not meeting the standards applicable to non-emergency engines, non-resettable hour meter installation requirement |
| 60.4243(b) | Maintenance requirements |
| 60.4243(d) | Maintenance check and readiness testing requirements for emergency engines |
| 60.4243(e) | Alternative fuel |
| 60.4243(g) | AFR controllers |

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain documentation of the manufacturer's recommendations, instructions, or operating manuals for the generator, along with documentation of any modifications deemed necessary by the permittee. These documents shall be maintained at the facility and shall be made available to the appropriate Ohio EPA District Office or local air agency upon request.
- (2) The permittee shall conduct periodic inspections of the generator to determine whether it is operating in accordance with the manufacturer's recommendations, instructions, or operating manuals with any modifications deemed necessary by the permittee or



operator. These inspections shall be performed at a frequency that shall be based upon the recommendation of the manufacturer and the permittee shall maintain a copy of the manufacturer's recommended inspection frequency and it shall be made available to the Ohio EPA upon request.

- (3) In addition to the recommended periodic inspections, not less than once each calendar year the permittee shall conduct a comprehensive inspection of the generator and perform any needed maintenance and repair to ensure that it is operated in accordance with the manufacturer's recommendations.
- (4) The permittee shall document each inspection (periodic and annual) of the generator and shall maintain the following information:
 - a. the date of the inspection;
 - b. a description of each/any problem identified and the date it was corrected;
 - c. a description of any maintenance and repairs performed; and
 - d. the name of person who performed the inspection.

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

- (5) The permittee shall maintain records that document any time periods when the NSCR catalyst was not in service when the emissions unit(s) was/were in operation, as well as, a record of all operations during which the generator was not operated according to the manufacturers 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) 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.
- (7) The permittee shall comply with the applicable monitoring and record keeping requirements of 40 CFR Part 60, Subpart JJJJ, including the following sections:

| | |
|-------------------------------------|---|
| 60.4245(a)(1) | Keeping records of notifications and supporting documentation |
| 60.4243(b)(2)(ii) and 60.4245(a)(2) | Keeping records of maintenance plan and records of maintenance conducted on the engine |
| 60.4245(a)(3) or (4) | Keeping records of certification or documentation that engine meets the emission standards |
| 60.4245(b) | For emergency engines not meeting the standards applicable to non-emergency engines, keeping records of hours of operation and documentation of hours |



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.
- (2) 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.
- (3) Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:
 - a. construction date (no later than 30 days after such date);
 - b. actual start-up date (within 15 days after such date);
 - c. date of performance testing (if required, at least 30 days prior to testing); and
 - d. notification of any physical or operational change to the existing facility which may increase the emission rate of any air pollutant to which the standard applies (unless that change is specifically exempted under the NSPS or in 40 CFR 60.14(e)) shall be postmarked 60 days before the change is commenced (or as soon as practicable) and shall include information describing the precise nature of the change, productive capacity of the facility before and after the change, and the expected completion date of the change.

Reports are to be sent to:

Ohio Environmental Protection Agency
 DAPC - Permit Management Unit
 50 West Town Street, Suite 700
 P. O. Box 1049
 Columbus, Ohio 43216-1049

and

Northeast District Office of the Ohio EPA
 Division of Air Pollution Control
 2110 E. Aurora Rd, Twinsburg, Ohio 44087.

- (4) The permittee shall submit notifications and reports to the Ohio EPA, Northeast District Office as required pursuant to 40 CFR Part 60, Subpart JJJJ, per the following sections:

| | |
|------------|--|
| 60.4245(c) | Must submit an initial notification if not certified |
| 60.4245(d) | Must submit performance test copies within 60 days after the test has been completed |

f) Testing Requirements

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

a. Emission Limitation:

Visible PE from the stack serving each emissions unit shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

PE shall not exceed 0.062 pound/million Btu of actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be based upon an emission factor of 0.0000771 pound/million Btu of heat input. This emission factor is specified in the U.S. EPA reference document AP-42, Compilation of Air Pollutant Emission Factors, Section 3.2, Table 3.2-2 (7/00).

If required, compliance with this emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 5.

c. Emission Limitations:

NO_x emissions shall not exceed 1.0 g/HP-hr and 82 ppmvd at 15% O₂.
CO emissions shall not exceed 2.0 g/HP-hr and 270 ppmvd at 15% O₂.
VOC emissions shall not exceed 0.7 g/HP-hr and 60 ppmvd at 15% O₂.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the emission testing requirements specified in f)(2).

(2) The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the procedures specified in 40 CFR 60.4244, 40 CFR Part 60, Subpart JJJJ Table 2 and the following requirements:

a. Conduct performance testing in the following manner:

i. if the permittee is purchasing a non-certified engine, an initial performance test shall be performed to demonstrate compliance with the



mass emissions limitations in 40 CFR 60.4233(e) for VOC, NO_x and CO, 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. Subsequent performance tests shall be conducted every 8,760 hours or 3 years, whichever comes first.

- b. If the stationary internal combustion engine is rebuilt or undergoes major repair or maintenance, the permittee shall conduct a subsequent performance test.
- c. Each performance test must be conducted within 10% of 100% peak (or the highest achievable) load and according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR Part 60, Subpart JJJJ.
- d. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Northeast District Office. 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, Northeast District Office's refusal to accept the results of the emission test(s).
- e. Personnel from the Ohio EPA, Northeast District Office 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.
- f. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Northeast District Office 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 Ohio EPA, Northeast District Office.

g) Miscellaneous Requirements

- (1) None.



9. P018, FLARE-2

Operations, Property and/or Equipment Description:

24.26 mmBtu/hr open-tip flare (controlling the dehydration flash tank off-gases (P001-P003), condensate storage tank emissions (T001-T003, T010 and T011), produced water storage tank emissions (T004-T006), and truck loading emissions (J001))

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|--|--|
| a. | OAC rule 3745-31-05(A)(3) June 30, 2008 | Nitrogen oxides (NO _x) emissions shall not exceed 0.83 ton per month averaged over a twelve-month rolling period. See b)(2)a. |
| b. | OAC rule 3745-31-05(A)(3)(b) June 30, 2008 | The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO _x emissions from this air contaminant source since the potential to emit is less than 10 tons/year. See b)(2)b. |
| c. | OAC rule 3745-17-07(A) | See b)(2)c. |
| d. | ORC 3704.03(T) | Carbon monoxide (CO) emissions shall not exceed 4.52 tons per month averaged over a twelve-month rolling period. See c)(1) and c)(2). |
| e. | OAC rule 3745-17-11(B) | See b)(2)d. |
| f. | 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) | Following the compliance date of April 15, 2015 for Group 1 storage vessels, and April 15, 2014 or 60 days after start-up (whichever is later) for Group 2 storage vessels, each storage vessel with VOC emissions calculated to exceed 6 tons per |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|---|
| | [In accordance with 40 CFR 60.5365, this emissions unit includes a storage vessel affected facility.] | year shall reduce VOC emissions by 95.0% or greater. See c)(3), d)(3) and e)(4). |
| g. | 40 CFR Part 60.1 through 60.19 | The General Provisions that apply are specified in Table 3 of 40 CFR Part 60, Subpart OOOO. |

(2) Additional Terms and Conditions

- a. This Best Available Technology (BAT) emission limit applies until U.S. EPA approves Ohio Administrative Code (OAC) paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) into the Ohio State Implementation Plan (SIP).
- b. These requirements apply once U.S. EPA approves OAC paragraph 3745-31-05(A)(3)(a)(ii) (the less than 10 tons per year BAT exemption) as part of the Ohio SIP.
- c. The emissions from the flare are exempt from the visible PE limitations specified in OAC rule 3745-17-07(A), pursuant to OAC rule 3745-17-07(A)(3)(h), because the emissions unit is not subject to the requirements of OAC rule 3745-17-11.
- d. The uncontrolled mass rate of PE from the flare is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight rate is equal to zero.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit.
- (2) The flare shall be designed and operated as follows:
 - a. The flare shall be operated with a 98% destruction efficiency.
 - b. The flare shall be operated at all times when emissions may be vented to it.
 - c. There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (3) The permittee shall comply with the restrictions required under 40 CFR Part 60, Subpart OOOO, as applicable, including the following sections:

| | |
|--|---|
| 60.5395(a), 60.5410(h)(2), and 60.5415(e)(3) | Operate the flare to achieve a 95% reduction of emissions of VOC from each storage vessel emitting more than 6 TPY. Emissions are to be determined per 60.5365(e). |
| 60.5412(a)(3) and 60.5413 | Design and operation requirements for a flare. |
| 60.5412(d)(3) | Operate the control device at all times when gases, vapors, and fumes are vented from the storage vessel through the closed vent system to the control device. |
| 60.5413(a)(1) | Performance test exemption if flare is designed and operated in accordance with section 60.18(b). Perform a visible emissions test using Method 22 at 40 CFR Part 60, Appendix A-7. |

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

- (1) The permittee shall record the following information each day for the flare and process operations:
 - a. the operating times for the flare and monitoring equipment.
- (2) The permittee shall maintain records of each day a fuel other than natural gas is burned in this emissions unit.
- (3) The permittee shall comply with the monitoring and record keeping requirements under 40 CFR Part 60, Subpart OOOO, including the following sections, as applicable:

| | |
|-----------------------|---|
| 60.5417(d)(1)(iii) | Install, calibrate, operate, and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame. |
| 60.5417(c)(1) | Detect and record the presence of a flare flame at least once every hour. |
| 60.5417(c)(2) | Install, calibrate, operate, and maintain the continuous monitoring systems in accordance with a site specific monitoring plan including the information required by rule. |
| 60.5417(c)(3) and (4) | Conduct a continuous parameter monitoring systems equipment performance check, system accuracy audit, or other audit procedure as specified in the site-specific monitoring plan at least once every 12 months. Conduct performance evaluations of the continuous parameter monitoring systems as specified in the site-specific monitoring plan. |
| 60.5417(g)(4) | Deviations for the flare occur when the monitoring data are not available for at least 75 percent of the operating hours in a day. |
| 60.5420(c) | The applicable records identified in 40 CFR 60.5420(c) and 40 CFR 60.7(f) must be maintained either onsite or at the nearest local field office for at least 5 years. |
| 60.5420(c)(5)(iii) | Maintain records of deviations. |



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, except during an emergency. Each report shall be submitted within 30 days after the deviation occurs.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify:
 - a. or the flare was not maintained as required in this permit;
 - b. the probable cause of each deviation (excursion);
 - c. any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - d. the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted, electronically through Ohio EPA Air Services, each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the appropriate District Office or local air agency).

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

| | |
|--------------------|-------------------------------|
| 60.5420(b)(6)(iii) | Submit records of deviations. |
|--------------------|-------------------------------|

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation:
 NO_x emissions shall not exceed 0.83 ton per month averaged over a twelve-month rolling period.



Applicable Compliance Method:

The emission rate specified above was established by multiplying the emission factor from AP-42, Table 13.5-1 (revised 1/95), of 0.068 lb NO_x/mmBtu by the maximum heat input rate of 33.47 mmBtu/hr. This number was then multiplied by the maximum annual hours of operation (8,760 hours), then divided by 2,000 lbs per ton and then divided by 12 months per year.

If required, compliance with the hourly NO_x emission limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and Method 7.

b. Emission Limitation:

CO emissions shall not exceed 4.52 tons per month averaged over a twelve-month rolling period.

Applicable Compliance Method:

The emission rate specified above was established by multiplying the emission factor from AP-42, Table 13.5-1 (revised 1/95), of 0.37 lb CO/mmBtu by the maximum heat input rate of 33.47 mmBtu/hr. This number was then multiplied by the maximum annual hours of operation (8,760 hours), then divided by 2,000 lbs per ton and then divided by 12 months per year.

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

c. Emission Limitation:

There shall be no visible particulate emissions from the flare, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method:

Compliance with the visible particulate emissions limitation shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 22.

d. Emission Limitation:

The flare shall be operated with at least 98% destruction efficiency.

Applicable Compliance Method:

If the flare complies with the control requirements specified in c)(2)b through c)(2)e, compliance with the 98% control efficiency requirement shall be assumed.



g) Miscellaneous Requirements

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

10. Emissions Unit Group -400-bbl condensate tanks: T001, T002, T003,

| EU ID | Operations, Property and/or Equipment Description |
|--------------|--|
| T001 | 400-bbl Condensate Storage Tank |
| T002 | 400-bbl Condensate Storage Tank |
| T003 | 400-bbl Condensate Storage Tank |

- 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 | <p>Volatile organic compound (VOC) emissions from the flare stack shall not exceed 0.48 ton per month averaged over a twelve-month rolling period, per emissions unit.</p> <p>The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart OOOO.</p> <p>Use of submerged or bottom fill on tank.</p> <p>See b)(2)a, b)(2)d, c)(1) and c)(2).</p> |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | 40 CFR Part 60, Subpart Kb | See b)(2)c. |
| d. | OAC Rule 3745-21-09(L)(1) | <p>Exempt pursuant to OAC rule 3745-21-09(L)(2)(a).</p> <p>See b)(2)e.</p> |
| e. | 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) | Following the compliance date of April 15, 2015 for Group 1 storage vessels, and April 15, 2014 or 60 days after start-up (whichever is later) for Group 2 storage vessels, each storage vessel with VOC emissions calculated to exceed 6 tons per |



| | Applicable Rules/Requirements | Applicable Emissions Limitations/Control Measures |
|----|---|---|
| | [In accordance with 40 CFR 60.5365, this emissions unit includes a storage vessel affected facility.] | year shall reduce VOC emissions by 95.0% or greater. See c)(3), d)(3) and e)(3). |
| f. | 40 CFR Part 60.1 through 60.19 | The General Provisions that apply are specified in Table 3 of 40 CFR Part 60, Subpart OOOO. |

(2) Additional Terms and Conditions

- a. The 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 is 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 emission limits/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the controlled potential to emit for VOC (taking into account the federally enforceable control device) is less than 10 tons/yr.
- c. This emission unit is exempt from the control requirements of 40 CFR 60.110(b) because it is a vessel with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer.
- d. Maintenance of the flare used to control VOC will assure compliance with the ton/month limitation. See emissions unit P018 for flare requirements.
- e. A fixed roof tank meeting one of the following criteria is exempt from installing an internal floating roof or other control device and is not subject to the requirements identified in OAC 3745-21-09(L):
 - i. a fixed roof tank with a capacity of less than 40,000 gallons; or
 - ii. a fixed roof tank used to store crude oil and condensate prior to lease custody transfer and with a capacity of less than 422,000 gallons; or

- iii. a fixed roof tank that stores a petroleum liquid with a true vapor pressure less than or equal to 1.52 pounds per square inch absolute.

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

c) Operational Restrictions

- (1) All of the emissions from the storage tank shall be captured by a vapor recovery unit (VRU) or flare.
- (2) During all periods of downtime of the VRU, a backup flare shall be utilized to control emissions that is designed and operated as required in emissions unit P018.
- (3) The permittee shall comply with the applicable restrictions required under 40 CFR Part 60, Subpart OOOO, including the following sections:

| | |
|--|---|
| 60.5395(a), 60.5410(h)(2), and 60.5415(e)(3) | Operate the flare to achieve a 95% reduction of emissions of VOC from each storage vessel emitting more than 6 TPY. Emissions are to be determined per 60.5365(e). |
| 60.5395(e) and 60.5411(b) | Equip the storage tanks with a cover connected through a closed vent system to the flare. The cover and all openings in the cover must form a continuous barrier over the entire surface area of the liquid in the storage vessel and must be secured in a closed, sealed position whenever material is stored in the storage vessels except as provided by rule. |
| 60.5395(e) and 60.5411(b)(3) | Each storage vessel thief hatch shall be weighted and properly seated. |
| 60.5395(e) and 60.5411(c) | Design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to these requirements. |
| 60.5395(e) and 60.5411(c)(2) | Design and operate the closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections. |
| 60.5395(e) and 60.5411(c)(3) | For closed vent systems containing one or more bypass devices, either install a flow indicator or secure the bypass device valve in the non-diverting position using a car-seal or a lock-and-key type configuration. |
| 60.5412(a)(3) and 60.5413 | Design and operation requirements for a flare. |
| 60.5413(a)(1) | Performance test exemption if flare is designed and operated in accordance with section 60.18(b). Perform a visible emissions test using Method 22 at 40 CFR Part 60, Appendix A-7. |
| 60.5415(e)(3)(A) | Repair all leaks detected from the closed vent system or |

| | |
|--|---|
| and 60.5416(c)(4), (5), (6), and (7) | cover as soon as practicable. First attempt at repair must be made no later than <u>5 calendar days</u> after detection, and repair must be completed no later than <u>30 calendar days</u> after detection, except as provided by rule (e.g., delay of repair, unsafe to inspect, difficult to inspect). Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair. |
|--|---|

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of all periods of downtime for the VRU.
- (2) The permittee shall record the annual throughput of each tank in gallons per year. The permittee shall keep records of U.S. EPA TANKS software program and/or other process simulation program calculations used to demonstrate annual storage tank and process vent emissions. These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- (3) The permittee shall comply with the applicable monitoring and record keeping requirements under 40 CFR Part 60, Subpart OOOO, including the following sections:

| | |
|--|--|
| 60.5416(c)(1) | For each closed vent system, conduct monthly olfactory, visual and auditory inspections for defects including, but not limited to, visible cracks, holes or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. Monthly inspections must be separated by at least 14 calendar days. |
| 60.5416(c)(2) | For each cover, conduct monthly olfactory, visual and auditory inspections for defects including, but not limited to, visible cracks, holes or gaps in the cover, or between the cover and the separator wall; broken, cracked or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. Monthly inspections must be separated by at least 14 calendar days. |
| 60.5416(c)(3) | For each bypass device, except as provided for in Section 60.5411(c)(3)(ii), set the flow indicator to sound an alarm at the inlet to the bypass device when the stream is being diverted away, or visually inspect the seal or closure mechanism monthly to verify that the valve is maintained in the non-diverting position. |
| 60.5417(d)(1)(iii) and 60.5415(e)(3)(i)(B) | Install, calibrate, operate, and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame. |
| 60.5417(c)(1) | Detect and record the presence of a flare flame at least once every hour. |

| | |
|-----------------------|---|
| 60.5417(c)(2) | Install, calibrate, operate, and maintain the continuous monitoring systems in accordance with a site specific monitoring plan including the information required by rule. |
| 60.5417(c)(3) and (4) | Conduct a continuous parameter monitoring systems equipment performance check, system accuracy audit, or other audit procedure as specified in the site-specific monitoring plan at least <u>once every 12 months</u> . Conduct performance evaluations of the continuous parameter monitoring systems as specified in the site-specific monitoring plan. |
| 60.5417(g)(4) | Deviations for the flare occur when the monitoring data are not available for at least 75 percent of the operating hours in a day. |
| 60.5417(g)(5) | Deviations for the bypass devices occur when the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere, or if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken. |
| 60.5420(c) | The applicable records identified in 40 CFR 60.5420(c) and 40 CFR 60.7(f) must be maintained either onsite or at the nearest local field office for at least 5 years. |
| 60.5420(c)(5)(ii) | Maintain records of each VOC emissions determination for each storage vessel affected facility including identification of the model or calculation methodology used to calculate the VOC emission rate. |
| 60.5420(c)(5)(iii) | Maintain records of deviations. |
| 60.5420(c)(5)(iv) | Maintain records for storage vessels that are skid-mounted or permanently attached to something that is mobile. |
| 60.5420(c)(5)(v) | Maintain records of the identification and location of each storage vessel affected facility. |
| 60.5420(c)(6) | Maintain required records for inspections of closed vent systems. |
| 60.5420(c)(7) | Maintain required records for inspections of storage vessel covers. |
| 60.5420(c)(8) | Maintain required records for inspections of the bypass or each time the key is checked out or each time the alarm is sounded. |

e) Reporting Requirements

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

- (3) The permittee shall comply with the applicable reporting requirements under 40 CFR Part 60, Subpart OOOO, including the following sections:

| | |
|---|---|
| 60.5420(a)(1) | Initial notifications are not required for storage vessels. |
| 60.5410(e)(8), 60.5420(b)(1), and 60.5420(b)(6) | Submit the required information for storage vessels in the initial annual report within 90 days of the end of the initial compliance period and in the subsequent reports due the same date each year as the initial annual report. |
| 60.5420(b)(6)(i) | Submit an identification, including the location, of each storage vessel affected facility for which construction, modification or reconstruction commenced during the reporting period. |
| 60.5420(b)(6)(ii) | Submit documentation of the VOC emission rate determination. |
| 60.5420(b)(6)(iii) | Submit records of deviations. |
| 60.5420(b)(6)(iv) | Submit a notification identifying each Group 1 storage vessel affected facility in the initial annual report. |
| 60.5420(b)(6)(v) | Submit a statement that the requirements of 60.5410(h)(2) and (3) have been met. |

f) Testing Requirements

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

a. Emission Limitation:

VOC emissions from the flare stack shall not exceed 0.48 ton per month averaged over a twelve-month rolling period, per emissions unit.

Applicable Compliance Method:

Compliance with the above emission limitations shall be determined using a current version of the U.S. EPA's TANKS software program for storage tank working/breathing losses; either the TANKS software program or other process simulation programs such as, but not limited to, HYSYS or ProMax, to calculate flash losses; the Gas Research Institute's simulation program GLY Calc version 4 or equivalent to calculate flash tank off-gas emissions; and an assumed destruction efficiency of 98% for the flare.

g) Miscellaneous Requirements

- (1) None.

11. Emissions Unit Group -400-bbl produced water tanks: T004, T005, T006,

| EU ID | Operations, Property and/or Equipment Description |
|--------------|--|
| T004 | 400-bbl Produced Water Storage Tank |
| T005 | 400-bbl Produced Water Storage Tank |
| T006 | 400-bbl Produced Water Storage Tank |

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 | The requirements of this rule include compliance with the applicable requirements of 40 CFR Part 60, Subpart OOOO. Use of submerged or bottom fill on tank. See b)(2)a, c)(1) and c)(2). |
| b. | OAC rule 3745-31-05(A)(3)(b), as effective 12/01/06 | See b)(2)b. |
| c. | 40 CFR Part 60, Subpart Kb | See b)(2)c. |
| d. | OAC Rule 3745-21-09(L)(1) | Exempt pursuant to OAC rule 3745-21-09(L)(2)(b). See b)(2)d. |
| e. | 40 CFR Part 60, Subpart OOOO, Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution (60.5360-60.5430) [In accordance with 40 CFR 60.5365, this emissions unit includes a storage vessel affected facility.] | Following the compliance date of April 15, 2015 for Group 1 storage vessels, and April 15, 2014 or 60 days after start-up (whichever is later) for Group 2 storage vessels, each storage vessel with VOC emissions calculated to exceed 6 tons per year shall reduce VOC emissions by 95.0% or greater. See b)(2)e, c)(3), d)(3) and e)(3). |



| | | |
|----|--------------------------------|---|
| f. | 40 CFR Part 60.1 through 60.19 | The General Provisions that apply are specified in Table 3 of 40 CFR Part 60, Subpart OOOO. |
|----|--------------------------------|---|

(2) Additional Terms and Conditions

a. The 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 is 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 emission limits/control measures 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 Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the uncontrolled potential to emit for VOC is less than 10 tons/yr and at de minimis levels.

c. This emission unit is exempt from the control requirements of 40 CFR 60.110(b) because it is a vessel with a design capacity less than or equal to 1,589.874 m³ used for petroleum or condensate stored, processed, or treated prior to custody transfer.

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

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

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

- e. This emissions unit is exempt from the control requirements of 40 CFR Part 60, Subpart OOOO because each single storage vessel has the potential for VOC emissions less than 6 tons per year.

c) Operational Restrictions

- (1) All of the emissions from the storage tank shall be captured by a vapor recovery unit (VRU) or flare.
- (2) During all periods of downtime of the VRU, a backup flare shall be utilized to control emissions that is designed and operated as required in emissions unit P018.
- (3) The permittee shall comply with the restrictions required under 40 CFR Part 60, Subpart OOOO, as applicable.

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| 60.5395(a), 60.5410(h)(2), and 60.5415(e)(3) | Operate the flare to achieve a 95% reduction of emissions of VOC from each storage vessel emitting more than 6 TPY. Emissions are to be determined per 60.5365(e). |
| 60.5395(e) and 60.5411(b) | Equip the storage tanks with a cover connected through a closed vent system to the flare. The cover and all openings in the cover must form a continuous barrier over the entire surface area of the liquid in the storage vessel and must be secured in a closed, sealed position whenever material is stored in the storage vessels except as provided by rule. |
| 60.5395(e) and 60.5411(b)(3) | Each storage vessel thief hatch shall be weighted and properly seated. |
| 60.5395(e) and 60.5411(c) | Design the closed vent system to route all gases, vapors, and fumes emitted from the material in the storage vessel to a control device. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to these requirements. |
| 60.5395(e) and 60.5411(c)(2) | Design and operate the closed vent system with no detectable emissions, as determined using olfactory, visual and auditory inspections. |
| 60.5395(e) and 60.5411(c)(3) | For closed vent systems containing one or more bypass devices, either install a flow indicator or secure the bypass device valve in the non-diverting position using a car-seal or a lock-and-key type configuration. |
| 60.5412(a)(3) and 60.5413 | Design and operation requirements for a flare. |
| 60.5413(a)(1) | Performance test exemption if flare is designed and operated in accordance with section 60.18(b). Perform a visible emissions test using Method 22 at 40 CFR Part 60, Appendix A-7. |
| 60.5415(e)(3)(A) and 60.5416(c)(4), | Repair all leaks detected from the closed vent system or cover as soon as practicable. First attempt at repair must be made no later than <u>5 calendar days</u> after |



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| (5), (6), and (7) | detection, and repair must be completed no later than <u>30 calendar days</u> after detection, except as provided by rule (e.g., delay of repair, unsafe to inspect, difficult to inspect). Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair. |
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d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of all periods of downtime for the VRU.
- (2) The permittee shall record the annual throughput of each tank in gallons per year. The permittee shall keep records of U.S. EPA TANKS software program and/or other process simulation program calculations used to demonstrate annual storage tank and process vent emissions. These records shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.
- (3) The permittee shall comply with the monitoring and record keeping requirements under 40 CFR Part 60, Subpart OOOO, as applicable.

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| 60.5416(c)(1) | For each closed vent system, conduct monthly olfactory, visual and auditory inspections for defects including, but not limited to, visible cracks, holes or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices. Monthly inspections must be separated by at least 14 calendar days. |
| 60.5416(c)(2) | For each cover, conduct monthly olfactory, visual and auditory inspections for defects including, but not limited to, visible cracks, holes or gaps in the cover, or between the cover and the separator wall; broken, cracked or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. Monthly inspections must be separated by at least 14 calendar days. |
| 60.5416(c)(3) | For each bypass device, except as provided for in Section 60.5411(c)(3)(ii), set the flow indicator to sound an alarm at the inlet to the bypass device when the stream is being diverted away, or visually inspect the seal or closure mechanism monthly to verify that the valve is maintained in the non-diverting position. |
| 60.5417(d)(1)(iii) and 60.5415(e)(3)(i)(B) | Install, calibrate, operate, and maintain a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame. |
| 60.5417(c)(1) | Detect and record the presence of a flare flame at least once every hour. |
| 60.5417(c)(2) | Install, calibrate, operate, and maintain the continuous monitoring systems in accordance with a site specific monitoring plan including the information required by rule. |

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| 60.5417(c)(3) and (4) | Conduct a continuous parameter monitoring systems equipment performance check, system accuracy audit, or other audit procedure as specified in the site-specific monitoring plan at least once every 12 months. Conduct performance evaluations of the continuous parameter monitoring systems as specified in the site-specific monitoring plan. |
| 60.5417(g)(4) | Deviations for the flare occur when the monitoring data are not available for at least 75 percent of the operating hours in a day. |
| 60.5417(g)(5) | Deviations for the bypass devices occur when the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere, or if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken. |
| 60.5420(c) | The applicable records identified in 40 CFR 60.5420(c) and 40 CFR 60.7(f) must be maintained either onsite or at the nearest local field office for at least 5 years. |
| 60.5420(c)(5)(ii) | Maintain records of each VOC emissions determination for each storage vessel affected facility including identification of the model or calculation methodology used to calculate the VOC emission rate. |
| 60.5420(c)(5)(iii) | Maintain records of deviations. |
| 60.5420(c)(5)(iv) | Maintain records for storage vessels that are skid-mounted or permanently attached to something that is mobile. |
| 60.5420(c)(5)(v) | Maintain records of the identification and location of each storage vessel affected facility. |
| 60.5420(c)(6) | Maintain required records for inspections of closed vent systems. |
| 60.5420(c)(7) | Maintain required records for inspections of storage vessel covers. |
| 60.5420(c)(8) | Maintain required records for inspections of the bypass or each time the key is checked out or each time the alarm is sounded. |

e) Reporting Requirements

- (1) The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (2) 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.
- (3) The permittee shall comply with the reporting requirements under 40 CFR Part 60, Subpart OOOO, as applicable.



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| 60.5420(a)(1) | Initial notifications are not required for storage vessels. |
| 60.5410(e)(8), 60.5420(b)(1), and 60.5420(b)(6) | Submit the required information for storage vessels in the initial annual report within 90 days of the end of the initial compliance period and in the subsequent reports due the same date each year as the initial annual report. |
| 60.5420(b)(6)(i) | Submit an identification, including the location, of each storage vessel affected facility for which construction, modification or reconstruction commenced during the reporting period. |
| 60.5420(b)(6)(ii) | Submit documentation of the VOC emission rate determination. |
| 60.5420(b)(6)(iii) | Submit records of deviations. |
| 60.5420(b)(6)(iv) | Submit a notification identifying each Group 1 storage vessel affected facility in the initial annual report. |
| 60.5420(b)(6)(v) | Submit a statement that the requirements of 60.5410(h)(2) and (3) have been met. |

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. None.

g) Miscellaneous Requirements

- (1) None.