



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

9/18/2015

Certified Mail

Kristine Akridge  
 Chandlersville Compressor Station  
 370 Van Gordon Street  
 Lakewood, CO 80228

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 0660000261  
 Permit Number: P0118166  
 Permit Type: Initial Installation  
 County: Muskingum

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

**How to appeal this permit**

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

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

## **How to save money, reduce pollution and reduce energy consumption**

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

## **How to give us feedback on your permitting experience**

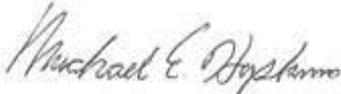
Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

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

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

Sincerely,



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

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



**FINAL**

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

Facility ID:	0660000261
Permit Number:	P0118166
Permit Type:	Initial Installation
Issued:	9/18/2015
Effective:	9/18/2015





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

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**Final Permit-to-Install**  
Chandlersville Compressor Station  
**Permit Number:** P0118166  
**Facility ID:** 0660000261  
**Effective Date:** 9/18/2015

## Authorization

Facility ID: 0660000261  
Facility Description: Compressor Station.  
Application Number(s): A0052322, A0053505, A0053855  
Permit Number: P0118166  
Permit Description: This PTI is to install three (3) new natural gas-fired compressor turbines, and to initially permit equipment blowdowns (P009) and equipment leaks (P801) where emissions increased by additional components associated with the new equipment being installed.  
Permit Type: Initial Installation  
Permit Fee: \$850.00  
Issue Date: 9/18/2015  
Effective Date: 9/18/2015

This document constitutes issuance to:

Chandlersville Compressor Station  
1420 Irish Ridge Rd.  
Philo, OH 43771

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

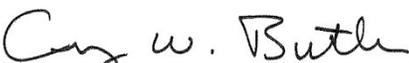
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0118166  
 Permit Description: This PTI is to install three (3) new natural gas-fired compressor turbines, and to initially permit equipment blowdowns (P009) and equipment leaks (P801) where emissions increased by additional components associated with the new equipment being installed.

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

<b>Emissions Unit ID:</b>	<b>P009</b>
Company Equipment ID:	Equipment Blowdowns
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

<b>Emissions Unit ID:</b>	<b>P801</b>
Company Equipment ID:	FUG
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

**Group Name: Turbines**

<b>Emissions Unit ID:</b>	<b>P005</b>
Company Equipment ID:	Combustion Turbine #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P006</b>
Company Equipment ID:	Combustion Turbine #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P007</b>
Company Equipment ID:	Combustion Turbine #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Chandlersville Compressor Station  
**Permit Number:** P0118166  
**Facility ID:** 0660000261  
**Effective Date:** 9/18/2015

## **A. Standard Terms and Conditions**

**1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

**2. Severability Clause**

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

**3. General Requirements**

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

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

#### **4. Monitoring and Related Record Keeping and Reporting Requirements**

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## **5. Scheduled Maintenance/Malfunction Reporting**

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

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

## **6. Compliance Requirements**

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

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

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

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Southeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

## **7. Best Available Technology**

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

**8. Air Pollution Nuisance**

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

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

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

**10. Applicability**

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

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

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

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

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

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

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

## 12. Permit-To-Operate Application

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

**13. Construction Compliance Certification**

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

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

**14. Public Disclosure**

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

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

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

**16. Fees**

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

**17. Permit Transfers**

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

**18. Risk Management Plans**

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

**19. Title IV Provisions**

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



**Final Permit-to-Install**  
Chandlersville Compressor Station  
**Permit Number:** P0118166  
**Facility ID:** 0660000261  
**Effective Date:** 9/18/2015

## **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) B.4, B.5, B.6, B.7, and B.8.
2. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart KKKK: P005, P006 and P007. The complete NSPS requirements, including the NSPS General Provisions, may be accessed via the internet from the e-CFR website <http://ecfr.gopaccess.gov> or by contacting the appropriate Ohio EPA district office or local air agency.
3. The emissions of air contaminant sources that qualify as de minimis under OAC rule 3745-15-05, or are exempt under OAC rule 3745-31-03(A)(1) or (4), must be included in the total potential to emit (PTE) calculations for the facility.
4. The PTI application for this/these emissions unit(s), P005, P006, P007, P008, B003 and B004, 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/m<sup>3</sup>): 0.37

Maximum Hourly Emission Rate (lbs/hr): 0.28

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 3.54

MAGLC (ug/m<sup>3</sup>): 8.77

The permittee, has demonstrated that emissions of Formaldehyde, from emissions unit(s) P005, P006, P007, P008, B003 and B004, 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:
- 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;
  - 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
  - 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.

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.
8. The permittee shall submit annual reports that include any changes to any 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 concentration. The report should include:
- a. the original model input;
  - b. the updated model input;
  - c. the reason for the change(s) to the input parameter(s); and
  - d. a summary of the results of the updated modeling, including the input changes; and
  - e. a statement that the model results indicate that the 1-hour maximum ground-level concentration is less than 80% of the MAGLC.
- If no changes to the emissions, emissions unit(s), or the exhaust stack have been made during the reporting period, then the second semi-annual report shall include a statement to that effect.
9. Chandlersville Compressor Station must comply with the Used Oil Management Standards of OAC Chapter 3745-279.
10. Within 180 days of startup of the facility, the permittee shall collect and analyze a representative sample of the incoming gas and liquids. The permittee shall use the results of the analysis to recalculate the emissions from the various components at the facility utilizing the standard software/emission factors. The permittee shall then compare the results of the revised calculation with the calculations submitted with the air pollution permit application. If the emissions results are significantly different from those results submitted with the application, then the applicant shall submit the revised calculations to the appropriate District Office or Local Air Authority. The applicant should



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provide all input data used, the basis for each input value used and the results provided by the program. This requirement applies to EUs P009 and P801.



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

**1. P009, Equipment Blowdowns**

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

Equipment blowdowns during periodic maintenance, routine operations, and pigging activities vented to atmosphere

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

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3), as effective 06/30/08	<p>Volatile organic compounds (VOC) emissions shall not exceed 0.0656 ton per month averaged over a twelve-month rolling period.</p> <p>See b)(2)a. below.</p>
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 06/30/08	<p>The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) does not apply to the VOC emissions from this air contaminant source since the potential to emit is less than 10 tons/year.</p> <p>See b)(2)b. below.</p>

(2) Additional Terms and Conditions

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

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

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain the following records on a monthly basis:
- a. the date of each event;
  - b. percent VOC fraction in the gas stream obtained from historic sampling;
  - c. total volume of gas (ft<sup>3</sup>) emitted from each event specified in d)(1)a.;
  - d. total volume of gas emitted from all events specified in d)(1)a.;
  - e. gas density (lb / scf) attained from historic gas sampling; and
  - f. total VOC emissions per month, averaged over a twelve month rolling period (as established in f)(1)a.).

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports for this emissions unit that identify:
- a. all deviations (excursions) of any emission limitations, operational restrictions, operational parameters and/or control device operating parameter limitations of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements 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. 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 deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

f) Testing Requirements

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

a. Emissions Limitation:

VOC emissions shall not exceed 0.655 tons per month averaged over a twelve-month rolling period

Applicable Compliance Method:

Compliance with the VOC emission limitation is demonstrated by the following equation which was based on information as provided in permittee's application:

$$\text{VOC (TPY)} = \text{Weight fraction (\%VOC)} * \text{Release volume (ft}^3\text{)} * \text{Gas density (lb/ft}^3\text{)} / 2000 \text{ (lbs/ton)}$$

Ongoing compliance is demonstrated through the use of the provided equation combined with the recordkeeping requirements established in d)(1).

g) Miscellaneous Requirements

(1) None.

**2. Emissions Unit Group -Turbines: P005, P006, and P007**

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P005	125.38 MMBtu/hr(lower heating value) Solar Mars 100 natural gas-fired combustion turbine equipped with a low-NOX combustion system.
P006	125.38 MMBtu/hr(lower heating value) Solar Mars 100 natural gas-fired combustion turbine equipped with a low-NOX combustion system.
P007	125.38 MMBtu/hr(lower heating value) Solar Mars 100 natural gas-fired combustion turbine equipped with a low-NOX combustion system.

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.

	<b>Applicable Rules/Requirements</b>	<b>Applicable Emissions Limitations/Control Measures</b>
a.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	Install a turbine that is designed to meet 15 ppmvdof nitrogen oxide (NO <sub>x</sub> ) at 15% oxygen.  Install a turbine that is designed to meet 0.061 lb/MMBtu of carbon monoxide (CO).
b.	OAC rule 3745-31-05(A)(3), as effective 06/30/08	Install a turbine that is designed to meet 0.007 lb/MMBtu of volatile organic compounds (VOC).  Install a turbine that is designed to meet 0.013 lb/MMBtu of Particulate emissions (PE/PM <sub>10</sub> /PM <sub>2.5</sub> ).  Sulfur dioxide (SO <sub>2</sub> ) emissions shall not exceed 0.166 ton per month averaged over a twelve-month, rolling period.  See b)(2)a. below.
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 06/30/08	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) does not apply to the VOC, PE,

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		and SO <sub>2</sub> emissions from this air contaminant source since the potential to emit is less than 10 tons/year.  See b)(2)b. below.
d.	OAC rule 3745-17-07(A)(1)	Visible PE from the stack serving this emissions unit shall not exceed 20% opacity as a six-minute average, except as provided by the rule.
e.	OAC rule 3745-17-11(B)(4)	PE from the turbine shall not exceed 0.040 pound per MMBtu of actual heat input.
f.	OAC rule 3745-18-06(F)	Pursuant to OAC rule 3745-18-06(A), this stationary gas turbine is exempt from the sulfur dioxide (SO <sub>2</sub> ) emission limitation specified by this rule during any calendar day in which natural gas is the only fuel burned.
g.	OAC rule 3745-110-03(E)	This emission limitation is less stringent than the limitation listed under 40 CFR Part 60, Subpart KKKK.
h.	40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 4420)  [In accordance with 40 CFR 60.4305(a) this emissions unit is a stationary combustion turbine with a heat input at peak load equal to or greater than 10.7 gigajoules (10 MMBtu/hr located in a continental area subject to the emissions limitations/control measures specified in this section.]	NO <sub>x</sub> emissions shall not exceed 25 ppm at 15% oxygen.  [40 CFR 60.4320 and Table 1 of 40 CFR Part 60, Subpart KKKK]  The SO <sub>2</sub> emissions shall not exceed 110 nanograms per Joule (ng/J), or the permittee shall burn fuel that contains total potential sulfur emissions in excess of 0.060 lb SO <sub>2</sub> /MMBtu heat input.  [40 CFR 60.4330(a)(1) and (2)]
i.	40 CFR Part 60, Subpart A (40 CFR 60.1 – 19)	Subpart A of 40 CFR Part 60, General Provisions

(2) Additional Terms and Conditions

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



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

c) Operational Restrictions

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

60.4320(a)	Emission limits for NO <sub>x</sub>
60.4330(a)(2)	Emission limits for SO <sub>2</sub>
60.4333(a)	Good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction

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 restrictions of 40 CFR Part 60, Subpart KKKK, including the following sections:

60.4340(a)	Compliance demonstration for NO <sub>x</sub> - Performance tests without water or steam injections
60.4360	Monitor total sulfur content
60.4365	Exemption from monitoring the total sulfur content of fuel
60.4365(a)	Maximum total sulfur content for fuel

e) Reporting Requirements

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



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

60.7	Notification
60.4375(b)	Written report of the results of each performance test

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:

Install a turbine that is designed to meet 15 ppmvd of NOx at 15% oxygen.

Applicable Compliance Method:

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

b. Emissions Limitation:

Install a turbine that is designed to meet 0.061 lb/MMBtu of CO.

Applicable Compliance Method:

Compliance is demonstrated by the turbine manufacturer's emissions specifications.

If required, carbon monoxide emissions shall be determined according to test Methods 1 - 4, and 10 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

c. Emissions Limitation:

Install a turbine that is designed to meet 0.007 lb/MMBtu of VOC.

Applicable Compliance Method:

Compliance is demonstrated by the turbine manufacturer's emissions specifications.

If required, volatile organic compound emissions shall be determined according to test Methods 1 - 4, and 18, 25, or 25A as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary



Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

d. Emissions Limitation:

Install a turbine that is designed to meet 0.013 lb/MMBtu of Particulate emissions (PE/PM<sub>10</sub>/PM<sub>2.5</sub>).

Applicable Compliance Method:

Compliance is demonstrated by the turbine manufacturer's emissions specifications.

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

e. Emissions Limitation:

SO<sub>2</sub> emissions shall not exceed 0.166 ton per month averaged over a twelve-month, rolling period.

Applicable Compliance Method:

Compliance is demonstrated by the information as listed in permittee's application.

$$0.0034 \text{ lbs/MMBtu} * 1,020 \text{ Btu/scf} / 955.3 \text{ Btu/scf} = 0.00363 \text{ lb/mmBtu}$$

$$0.00363 \text{ lb/mmBtu} * 125.38 \text{ MMBtu/hr} = 0.4552 \text{ lb/hr} * 8,760 \text{ hrs/yr} / 2,000 \text{ lbs/ton} = 1.99 \text{ TPY}$$

This emissions limitation is derived from AP-42 emission factors (Table 3.1-2a, Emission Factors for Criteria Pollutants and Greenhouse Gases from Stationary Gas Turbines, 4/00)

If required, sulfur dioxide emissions shall be determined according to test Methods 1 - 4, and 6 as set forth in the "Appendix on Test Methods" in 40 CFR, Part 60 "Standards of Performance for New Stationary Sources". Alternative U.S. EPA-approved test methods may be used with prior approval from Ohio EPA, Southeast District Office.

f. Emissions Limitation:

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



Applicable Compliance Method:

If required, visible particulate emissions shall be determined according to USEPA Method 9.

g. Emissions Limitation:

PE from the turbine shall not exceed 0.040 pound per MMBtu of actual heat input.

Applicable Compliance Method:

Compliance is demonstrated by the emissions factor of 0.013 lb/MMBtu as listed in permittee's application.

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

h. Emissions Limitation:

NO<sub>x</sub> emissions shall not exceed 25 ppmv at 15% oxygen.

Applicable Compliance Method:

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

i. Emissions Limitation:

The SO<sub>2</sub> emissions shall not exceed 110 nanograms per Joule (ng/J), or the permittee shall burn fuel that contains total potential sulfur emissions in excess of 0.060 lb SO<sub>2</sub>/MMBtu heat input.

Applicable Compliance Method:

Compliance is demonstrated by burning only natural gas and through recordkeeping, monitoring, and reporting as required in 40 CFR 60.4365 and 40 CFR 60.4370.

(2) Pursuant to 40 CFR 60.8, 60.4340(a) and 60.4400, OAC rule 3745-31-05(A)(3), and ORC 3704.03(T), the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and conduct subsequent performance tests in accordance with 60.4340(a) and 60.4400(a).

- b. The emissions testing shall be conducted to demonstrate compliance with the NO<sub>x</sub> emissions limitation identified in 40 CFR 60.4320 and paragraph 2.c)10(b)(1)(a) of this permit.
  - c. The following test methods shall be employed to demonstrate compliance with the allowable NO<sub>x</sub> emissions rate and design standard for NO<sub>x</sub>:  
  
Methods 7E, 3A, or 20 of 40 CFR Part 60, Appendix A for NO<sub>x</sub>
  - d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency or as required by 40 CFR 60.4400(b). Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).
  - f. Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - g. A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.
- g) Miscellaneous Requirements
- (1) None.

**3. P801, Fugitive Equipment Leaks**

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

Fugitive Equipment Leaks – various ancillary equipment (piping components), including each pump, compressor, dry seal, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC 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.	OAC rule 3745-31-05(A)(3), as effective June 30, 2008	Develop and implement a site-specific leak detection and repair program for ancillary equipment (piping components) in VOC service as described in c) below.  See b)(2)a. below.
b.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective June 30, 2008	The Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC emissions from this air contaminant source since the calculated annual emissions rate is less than 10 tons per year (TPY) taking into account the voluntary restriction from OAC rule 3745-31-05(E).  See b)(2)b. below.
c.	OAC rule 3745-31-05(E), as effective June 30, 2008	Volatile organic compounds (VOC) emissions shall not exceed 0.90 tons per year.  Develop and implement a site-specific leak detection and repair program for ancillary equipment (piping components) in VOC service as described in c) below.

(2) Additional Terms and Conditions

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

c) Operational Restrictions

(1) Fugitive Equipment Leak Detection and Repair Program

The permittee shall develop and implement a leak detection and repair program designed to monitor and repair leaks from piping components covered by this permit, including each pump, compressor seal, pressure relief device, sampling connection system, open-ended valve or line, valve, and flange or other connector in VOC service.

- a. Leaks shall be detected by the use of a “Forward Looking Infra-Red” (FLIR) camera.
- b. An initial monitoring shall be completed within 180 days of startup and every calendar year thereafter.
- c. A first repair attempt shall be made within 15 calendar days, with the leak repaired as soon as practicable, but no later than within 30 days of detecting a leak. Repaired components shall be re-screened within 5 days of repair to determine if the leak is repaired. If the rescreening shows a leak, then attempt another repair as soon as practicable, but no later than 15 days. Repeat the process until the rescreening shows no leak.
- d. If a leak is detected but it is technically infeasible to make the repair without a process unit shutdown, repair of the component shall occur before the end of the next process unit shutdown. Records documenting the delayed repair rationale shall be maintained, the component placed on the Delay of Repair list, the ID number recorded, and an estimated date for repairing the component included in the facility records. Monitoring to verify the repair must occur within 15 days after startup of the process unit.
- e. The program shall follow the Monitoring and Record Keeping requirements described in paragraph 5.d) of this permit.

d) Monitoring and/or Recordkeeping Requirements

- (1) Within 180 days of startup, the permittee shall develop a list of components not in VOC service and the information or data used to demonstrate that the equipment is not in VOC service. This can be in the form of:

- a. A written or electronic component log or identified on the facility piping and instrumentation drawings (PID).
  - b. A component is considered not in VOC service if it can be determined that the VOC content of the process fluid, which is contained in or contacts the piece of equipment, can be reasonably expected never to exceed 10% by weight.
- (2) The permittee shall perform weekly inspections for any auditory, visual, or olfactory (AVO) indications of component leaks. AVO inspections of components that are unsafe, difficult or inaccessible to monitor are not required. The positive indication of a release or a leak shall be noted in an operations log, along with the following information:
- a. the name of the inspector;
  - b. the date and time inspected;
  - c. number of components in VOC service noted to be leaking;
  - d. corrective actions taken to minimize or eliminate the release or leak.
- (3) Equipment Leak Detection and Repair Program Monitoring and Record Keeping
- a. Leaks shall be determined by visually observing each component through the FLIR camera to determine if leaks are visible.
    - i. When an FLIR camera is used, a leak is any detectable emissions not associated with normal equipment operations, such as pneumatic device actuation, crank case ventilation, and sampling connections.
  - b. The following information shall be recorded during each leak inspection:
    - i. the date the inspection was conducted;
    - ii. the name of the employee conducting the leak check;
    - iii. number of components in VOC service monitored;
    - iv. number of leaking components;
    - v. the date the first attempt to repair the component was made;
    - vi. the reason for any delayed repairs;
    - vii. the date the component was repaired and determined to no longer be leaking;
    - viii. number of components in VOC service; and
    - ix. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of components in VOC service, and multiplied by 100.

- c. The permittee shall maintain records that demonstrate the FLIR camera is operated and maintained in accordance with the manufacturer's operation and maintenance instructions.
- d. The records from each inspection and the dates each leak is detected and repaired shall be maintained for at least 5 years and shall be made available to the Director or his representative upon verbal or written request.

e) Reporting Requirements

- (1) Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) The permittee shall submit quarterly deviation (excursion) reports that identify all periods of time during which weekly auditory, visual, or olfactory (AVO) inspections were not performed. The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify any requirements that were not performed as required by c)(1). The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (4) The permittee shall submit an annual report, for the previous calendar year inspection, that contains the following information from data collected by the fugitive equipment leak detection and repair program:
  - i. the date the inspection was conducted;
  - ii. the name of the employee conducting the leak check;
  - iii. number of components in VOC service monitored;
  - iv. number leaking components in VOC service;
  - v. the date the first attempt to repair the component was made;
  - vi. the reason for any delayed repairs;
  - vii. the date the component was repaired and determined to no longer be leaking;
  - viii. the total number of components in VOC service; and
  - ix. the percentage of components leaking, determined as the sum of the number of components for which a leak was detected, divided by the total number of components in VOC service capable of developing a leak, and multiplied by 100.



This annual report shall be included in the annual compliance certification required under the Title V Permit, due on or before April 30<sup>th</sup> of each year during the Title V permit term.

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 0.90tons per year.

Applicable Compliance Method:

The annual VOC limitation is the potential-to-emit based upon the estimated number of components and type of service (gas/vapor and light liquid) expected at the natural gas compressor station. The appropriate emissions factors from U.S. EPA's "Protocol for Equipment Leak Emission Estimates", Table 2-4, for Oil and Gas Production Operations (a conservative estimate), shall be used to demonstrate compliance. The facility's potential emissions from ancillary and associated equipment [piping components] (fugitive equipment) shall be documented from the following calculation:

For each component type

$$\# \text{ of components} \times \text{applicable EPA emission factor} \times \% \text{ VOC}^* = \text{lb VOC/hr}$$

\*For purposes of calculating the potential to emit for this unit, VOC weight % is based on a representative gas analysis.

In Gas/Vapor Service

$$\text{Number of connectors (791)} \times 0.000441 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

$$\text{Number of valves (645)} \times 0.00992 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

$$\text{Number of flanges (987)} \times 0.00086 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

$$\text{Number of compressor seals (30)} \times 0.0194 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

$$\text{Number of pressure relief valves (43)} \times 0.0194 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

$$\text{Number of open ended lines (98)} \times 0.00441 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

$$\text{Number of meters (9)} \times 0.0194 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$

In Light Liquid Service

$$\text{Number of connectors (419)} \times 0.000463 \text{ lb/hr} \times \% \text{ VOC} = \text{lb VOC/hr}$$



Number of valves (167) x 0.00551 lb/hr x % VOC = lb VOC/hr

Number of flanges (572) x 0.00024 lb/hr x % VOC = lb VOC/hr

Number of pump seals (4) x 0.0287 lb/hr x % VOC = lb VOC/hr

Number of relief valves (2) x 0.01653lb/hr x % VOC = lb VOC/hr

The total summation of VOC emissions per hour shall be multiplied by 8,760 hours per year, multiplied by 1 ton/2,000 lbs to calculate the annual fugitive VOC emissions for the demonstration of compliance.

g) Miscellaneous Requirements

- (1) None.