



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

10/23/2017

Mary King
 Guernsey Power Station LLC
 3698 Paddock Road
 Plainfield, IN 46168

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0630005062
 Permit Number: P0122594
 Permit Type: Initial Installation
 County: Guernsey

Certified Mail

Yes	TOXIC REVIEW
Yes	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
Yes	CEMS
Yes	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
Yes	MODELING SUBMITTED
Yes	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
 30 East Broad Street, 4th Floor
 Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

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

How to give us feedback on your permitting experience

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

How to get an electronic copy of your permit

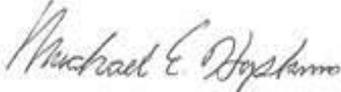
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

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

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

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

Sincerely,



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

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



Response to Comments

Facility ID:	0630005062
Facility Name:	Guernsey Power Station LLC
Facility Description:	1,650 MW combined cycle combustion turbine electrical generating facility
Facility Address:	1.5 m N of SR 313/I-77 exch on Seneca Ln Byesville, OH 43723 Guernsey County
Permit:	P0122594, Permit-To-Install - Initial Installation
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the The Daily Jeffersonian on 09/14/2017. The comment period ended on 10/14/2017.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

1. Topic: None

a. Comment:

For the combustion turbines (EUs P001-P003), U.S. EPA, Region V commented that the draft permit does not appear to require initial stack testing for H₂SO₄ or SO₂ (pages 52 and 55 of 86). Recent Ohio EPA PSD permits for Trumbull Energy and Oregon Energy Center permits require H₂SO₄ stack testing. Please explain why H₂SO₄ and SO₂ stack testing is not required in this permit?

Response:

The compliance method specified in the testing section for SO₂ emissions from the combustion turbines (CTs) for both the Trumbull and Oregon facilities is 40 CFR 60.4415, the fuel sulfur testing requirement from NSPS Subpart KKKK. Not Method 6 stack testing. The difference between those PTIs and the draft Guernsey PTI is that “fuel sulfur content” and the NSPS method (since the method tests for fuel sulfur content and not SO₂ emissions) was listed in the testing method table instead of identifying the method as being for SO₂ compliance. The draft PTI has been updated to reference the testing requirement in f)(2) for the 40 CFR 60.4415 testing with the SO₂ limit compliance being based on the fuel gas sampling method. Note that for the CTs at both Trumbull and Oregon, compliance with the limit is based on low sulfur



natural gas and does not even reference the testing requirement listed in f)(2). Thus, the SO₂ testing requirements for the CTs are the same or more stringent in the Guernsey PTI as they are in Trumbull and Oregon

PTIs. Note the 40 CFR 60.4415 method was accidentally omitted in the boiler and fuel gas heater terms, and these requirements have been added back.

The reason the fuel gas sampling, which is sufficient to demonstrate SO₂ compliance in both NSPS Db for the auxiliary boiler and NSPS KKKK for the CTs, is that per the consultants, the expected concentrations of SO₂ from all of the combustion sources at the new facility would be below the detection levels of Method 6. Further, based on AP-42, both SO₂ and H₂SO₄ emissions are most accurately calculated using a mass balance based on fuel sulfur content, so it does not appear there would be much value in requiring initial stack testing. The Trumbull and Oregon PTIs do have H₂SO₂ testing for the CTs, and the company was already being required to test for H₂SO₄ for the auxiliary boiler and fuel gas heaters, so that requirement was added back for the CTs as well.

b. Comments:

For the combustion turbines (EUs P001-P003), U.S. EPA, Region V commented that on page 40 of 86 of the draft permit, it says that the total emission in pounds for VOC, PM₁₀/PM_{2.5}, H₂SO₄, and SO₂ shall be calculated using an emission factor "or the results of the most recent stack test". Both the Trumbull Energy and Oregon Energy Center permits require that the stack testing results for VOC, PM₁₀/PM_{2.5}, H₂SO₄ be used to calculate emissions to assure compliance. Please explain why this draft permit for Guernsey Power does not require the same. And if it is decided to add a SO₂ stack testing requirement to this draft permit, maybe the results could be used to calculate SO₂ emissions to demonstrate compliance (instead of emission factors).

For the fuel gas heaters (P007 and P008), Page 81 of 86 of the draft permit says that total emission in pounds for NO_x, CO, VOC, H₂SO₄, SO₂, and PM₁₀/PM_{2.5} shall be calculated using an emission factor "or the results of the most recent stack test". Page 85 of 86 requires stack testing for all these pollutants. Please explain why SO₂ testing is not required in the permit, and please explain why the permit does not require that the stack testing results for NO_x, CO, VOC, H₂SO₄, SO₂, and PM₁₀/PM_{2.5} be used to calculate the emissions to assure compliance (instead of emission factors).

Response:

This monitoring language is for compliance with the rolling, 12-month BACT limits, not any short-term limits. Because there will be some operating time between start-up of the equipment and when the stack testing will occur, there needs to be a way for the company to begin calculating compliance, on a monthly basis, with the rolling, 12-month emissions limitations before the testing is completed. The purpose of requiring the use of the manufacturers' specification before testing is conducted is to ensure the company can comply with the monthly recordkeeping requirements upon startup. Note this issue is not addressed in the Trumbull and Oregon permits.



Response to Comments
Guernsey Power Station LLC
Permit Number: P0122594
Facility ID: 0630005062

The EFs used in the monthly recordkeeping requirements for the rolling, 12-month BACT limits are based on the BACT short-term limits which are vendor guarantees or are based on fuel with <math><0.5 \text{ gr S}/100 \text{ scf}</math>. Thus, the EFs have been retained in the monitoring language, but the language has been updated to specify that the EF will be used, or, after testing has been completed, the results of the most recent stack test shall be used. This update should address both the need for recordkeeping before testing is completed and the need to base compliance with the rolling, 12-month BACT limits on stack test results after testing has been completed.



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Guernsey Power Station LLC**

Facility ID:	0630005062
Permit Number:	P0122594
Permit Type:	Initial Installation
Issued:	10/23/2017
Effective:	10/23/2017



Division of Air Pollution Control
Permit-to-Install
for
Guernsey Power Station LLC

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Final Permit-to-Install
Guernsey Power Station LLC
Permit Number: P0122594
Facility ID: 0630005062
Effective Date: 10/23/2017

Authorization

Facility ID: 0630005062
Facility Description:
Application Number(s): A0056756, A0057313, A0058959
Permit Number: P0122594
Permit Description: Installation PTI for a new 1,650 MW combined cycle natural-gas fired turbine plant and associated auxiliary boiler, firewater pumps, emergency generators and fuel gas heaters
Permit Type: Initial Installation
Permit Fee: \$8,050.00
Issue Date: 10/23/2017
Effective Date: 10/23/2017

This document constitutes issuance to:

Guernsey Power Station LLC
1.5 m N of SR 313/I-77 exch on Seneca Ln
Byesville, OH 43723

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: P0122594

Permit Description: Installation PTI for a new 1,650 MW combined cycle natural-gas fired turbine plant and associated auxiliary boiler, firewater pumps, emergency generators and fuel gas heaters

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

Emissions Unit ID:	B001
Company Equipment ID:	Auxiliary Boiler
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	Emergency Fire Pump
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Combustion Turbines

Emissions Unit ID:	P001
Company Equipment ID:	Combustion Turbine #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	Combustion Turbine #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	Combustion Turbine #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Emergency Generators

Emissions Unit ID:	P004
Company Equipment ID:	Emergency Generator #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	Emergency Generator #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Fuel Gas Heaters

Emissions Unit ID:	P007
Company Equipment ID:	Fuel Gas Heater #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P008
Company Equipment ID:	Fuel Gas Heater #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
Guernsey Power Station LLC
Permit Number: P0122594
Facility ID: 0630005062
Effective Date: 10/23/2017

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
Guernsey Power Station LLC
Permit Number: P0122594
Facility ID: 0630005062
Effective Date: 10/23/2017

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) 8.-12.
2. The following emissions unit contained in this permit is subject to 40 CFR Part 60, Subpart Db and 40 CFR Part 63, Subpart DDDDD: B001. The complete NSPS and MACT requirements, including the NSPS and MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulation (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA, Southeast District Office.
3. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subparts KKKK and TTTT and 40 CFR Part 63, Subpart YYYY: P001-P003. The complete NSPS and MACT requirements, including the NSPS and MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulation (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA, Southeast District Office.
4. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart IIII and 40 CFR Part 63, Subpart ZZZZ: P004-P006. The complete NSPS and MACT requirements, including the NSPS and MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulation (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA, Southeast District Office.
5. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart Dc and 40 CFR Part 63, Subpart DDDDD: P007 and P008. The complete NSPS and MACT requirements, including the NSPS and MACT General Provisions, may be accessed via the internet from the Electronic Code of Federal Regulation (e-CFR) website <http://www.ecfr.gov> or by contacting the Ohio EPA, Southeast District Office.
6. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.
7. The following emissions units are subject to the 40 CFR Part 97 - Cross-State Air Pollution Rule (CSAPR): P001, P002 and P003. The applicable CSAPR requirements will be incorporated in the initial Title V operating permit terms and conditions for these emission units based on the U.S. EPA guidance "Title V Permit Guidance and Template for the Cross-State Air Pollution Rule" available at <http://www.epa.gov/crossstaterule/pdfs/CSAPR Title V Permit Guidance.pdf>.
8. The permit-to-install (PTI) application for emissions units B001 and P001-P008 was evaluated based on the actual materials and the design parameters of the emissions units' exhaust systems, as specified by the permittee. The "Toxic Air Contaminant Statute," ORC 3704.03(F), was applied to these emissions units 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 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):

- (1) 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
- (2) 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 10 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., 24 hours per day and 7 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):

$$\text{TLV}/10 * 8/24 * 5/7 = 4 \text{ TLV}/24 * 7 = \text{MAGLC}$$

d) The following summarizes the results of dispersion modeling for the "worst case" toxic contaminant (emitted at one or more tons/year):

Toxic Contaminant: sulfuric acid mist (H₂SO₄) (acetaldehyde, ammonia, ethylbenzene, formaldehyde, propylene oxide, toluene and xylenes)
TLV (mg/m³): 0.20 (H₂SO₄)
Maximum Hourly Emission Rate (lb/hr): 14.77 (H₂SO₄)
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 2.49
MAGLC (ug/m³): 4.76

The permittee, has demonstrated that emissions of H₂SO₄ from emissions units B001 and P001-P008 are calculated to be less than 80 percent 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).

9. 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 FEPTIO 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.

10. 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.
11. 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.

12. 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 Contaminate Statute”, ORC 3704.03(F), through the predicted 1-hour maximum concentration. The report shall 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 report shall include a statement to that effect. This report shall be postmarked or delivered no later than January 31 following the end of each calendar year.



Final Permit-to-Install
Guernsey Power Station LLC
Permit Number: P0122594
Facility ID: 0630005062
Effective Date: 10/23/2017

C. Emissions Unit Terms and Conditions

1. B001, Auxiliary Boiler

Operations, Property and/or Equipment Description:

185.0 MMBtu/hr natural gas-fired boiler with low-NO_x burners and flue gas recirculation (FGR)

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) b)(1)d. and b)(2)i.

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 rules 3745-31-10 through 3745-31-20 and 3745-31-34	<p>Nitrogen oxides (NO_x) emissions shall not exceed 0.020 lb/MMBtu of actual heat input, 3.70 pounds per hour and 9.25 tons per rolling, 12-month period.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.055 lb/MMBtu of actual heat input, 10.18 pounds per hour and 25.45 tons per rolling, 12-month period.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.0050 lb/MMBtu of actual heat input, 0.93 pound per hour and 2.33 tons per rolling, 12-month period.</p> <p>Particulate emissions (PE) and emissions of particulate matter less than 10 microns (PM₁₀) and particulate matter less than 2.5 microns (PM_{2.5}) shall not exceed 0.0070 lb/MMBtu of actual heat input, 1.30 pounds per hour and 3.25 tons per rolling, 12-month period.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.0015 lb/MMBtu, 0.28 pound per hour and 0.70 ton per rolling, 12-month period.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Sulfuric acid (H₂SO₄) emissions shall not exceed 0.00023 lb/MMBtu, 0.043 pound per hour and 0.11 ton per rolling, 12-month period.</p> <p>Carbon dioxide equivalent (CO₂e) emissions shall not exceed 54,167.0 tons per rolling, 12-month period.</p> <p>Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.</p> <p>See b)(2)a.-g. below.</p>
b.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	The emissions limitation for CO required by this rule is equivalent to the emissions limitation for CO established pursuant to OAC rules 3745-31-10 through 3745-31-20.
c.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	<p>The emissions limitations for NO_x, VOC, PE/PM₁₀/PM_{2.5} and SO₂ required by this rule are equivalent to the emissions limitations for NO_x, VOC, PE/PM₁₀/PM_{2.5} and SO₂ established pursuant to OAC rules 3745-31-10 through 3745-31-20.</p> <p>Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO₂e emissions from this air contaminant source pursuant to OAC rule 3745-31-34(E)(8).</p> <p>See b)(2)h. and c)(1) below.</p>
d.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	<p>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 calculated annual emissions rate is less than 10 tons per year taking into account the federally enforceable requirements of OAC rules 3745-31-10 through 3745-31-20.</p> <p>BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the VOC, PE/PM₁₀/PM_{2.5} and SO₂ emissions from this air contaminant source since the</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		potential to emit is less than 10 tons/year. See b)(2)i. below.
e.	OAC rule 3745-17-10(B)(1)	The emissions limitation required by this rule is less stringent than the emission limitation required pursuant to OAC rules 3745-31-10 through 3745-31-20.
f.	OAC rule 3745-17-07(A)	The emission limitation specified by this rule is less stringent than the limitation established by OAC rule 3745-31-10 through 20.
g.	OAC rule 3745-18-06	Exempt pursuant to OAC rule 3745-18-06(A) since only natural gas fuel is burned in this emissions unit.
h.	OAC rule 3745-110-03(C)	Exempt pursuant to OAC rule 3745-110-03(K)(20) because this emissions unit is subject to BACT requirements for NO _x emissions.
i.	40 CFR Part 60, Subparts A and Db (40 CFR 60.1-19 and 60.40b-60.49b) [In accordance with 40 CFR 60.40b(a), this emissions unit is a steam generating unit commencing construction, modification or reconstruction after July 19, 1984 and that has a heat input capacity of greater than 29 megawatts (MW) (100 million BTU per hour (MMBtu/hr) subject to the emissions limitations and control measures specified in this section.]	The emissions limitation required by this rule is less stringent than the emissions limitation required pursuant to OAC rules 3745-31-10 through 3745-31-20 for NO _x emissions. [40 CFR 60.44b(a)(1)] Emissions units firing only gaseous fuels are exempt from the SO ₂ emissions limitation in 60.42b(k)(1). [40 CFR 60.42b(k)(2)] See b)(2)j. below.
j.	40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575) [In accordance with 40 CFR 63.7480, 63.7485, 63.7490(a)(2) and (b) and 63.7499(l), this emissions unit is a new industrial boiler located at a major source of HAP emissions in the units designed to burn gas 1 fuels subject to the emissions limitations and control measures specified in this section.]	The permittee shall comply with the work practice standards in 40 CFR Part 63, Subpart DDDDD Table 3. [40 CFR 63.7500(a)(1) and Table 3 (1 or 3)] See c)(3) below. The permittee shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD upon startup. [40 CFR 63.7495(a)]
k.	40 CFR Part 63, Subpart A	Table 10 of 40 CFR Part 63, Subpart

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(40 CFR 63.1-16)	DDDDD specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to this subpart. [40 CFR 63.7565]

(2) Additional Terms and Conditions

- a. As part of the Best Available Control Technology (BACT) determination, this emissions unit shall operate for no more than 5,000 hours per rolling, 12-month period.
- b. As part of the BACT determination for NO_x, the boiler must be equipped with low-NO_x burners and must utilize FGR. Compliance with these requirements shall be demonstrated by compliance with the short-term NO_x emission limitations in b)(1)a.
- c. As part of the BACT determination for CO, compliance with the BACT requirements shall be demonstrated by compliance with the short-term CO emission limitations in b)(1)a.
- d. As part of the BACT determination for VOC, compliance with the BACT requirements shall be demonstrated by compliance with the short-term VOC emission limitation in b)(1)a.
- e. As part of the BACT determination for PE, PM₁₀ and PM_{2.5}, compliance with the BACT requirements shall be demonstrated by compliance with the short-term PE, PM₁₀ and PM_{2.5} emission limitations in b)(1)a.
- f. As part of the BACT determination for SO₂ and H₂SO₄, the permittee shall burn only natural gas with a sulfur content of less than 0.50 grain/100 scf in this emissions unit. Compliance with this requirement shall be demonstrated by compliance with the SO₂ and H₂SO₄ emissions limitations in b)(1)a.
- g. As part of the BACT determination for CO₂e, compliance with the BACT requirements shall be demonstrated by compliance with the CO₂e emissions limitation in b)(1)a.
- h. This 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).
- i. 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.

- j. Continuous emission monitoring systems consist of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.
- k. Each continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2, 3 and 6. At least 45 days before commencing certification testing of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_x and CO₂ or O₂ emissions from the continuous monitor(s), in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; and to conduct relative accuracy test audits in units of the standard(s), in accordance with and at the frequencies required per 40 CFR Part 60.

- l. See 40 CFR Part 60, Subpart Db (40 CFR 60.40b–60.49b).

c) **Operational Restrictions**

- (1) The permittee shall burn only natural gas fuel with a maximum sulfur content not to exceed 0.50 grain/100 scf in this emissions unit.
- (2) See 40 CFR Part 60, Subpart Db (40 CFR 60.40b–60.49b).
- (3) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575).

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

- (1) For each day during which the permittee burns a fuel other than natural gas fuel with a maximum sulfur content of 0.50 grain/100 scf, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (2) Prior to the installation of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) meets the requirements of Performance Specifications 2, 3 and 6. Once received, the letter(s)/document(s) of certification shall be maintained on-site and

shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

- (3) The permittee shall install, operate, and maintain equipment to continuously monitor and record NO_x and CO₂ or O₂ emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) including, but not limited to:

- a. emissions of NO_x in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of NO_x in pounds per month;
- c. the percent CO₂ or O₂ with each cycle time of the analyzer, with no resolution less than one data point per minute required;
- d. results of quarterly cylinder gas audits;
- e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- g. hours of operation of the emissions unit, continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), and control equipment;
- h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system);
- i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system); as well as,
- j. the reason (if known) and the corrective actions taken (if any) for each such event in (h) and (i).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (4) In order to accurately determine the heat input rates for this emissions unit, the permittee shall install, operate, and maintain equipment to continuously monitor and record the actual natural gas fuel flow rate to this emissions unit.

- (5) The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in this emissions unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D. Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the fuel's sulfur content is required annually and whenever the fuel supply sources change, and sampling and analysis of the fuels gross calorific value shall be sampled monthly.
- (6) The permittee shall maintain monthly records of the following information:
- a. the hours of operation of this emissions unit;
 - b. the rolling, 12-month summation of operating hours for this unit, calculated by adding the total hours of operation for the present month as recorded in d)(6)a., plus the total hours of operation for the previous 11 months;
 - c. the amount of natural gas consumed in this emissions unit, in MMscf;
 - d. the heat content of the natural gas combusted in this emissions unit, in MMBtu/MMscf;
 - e. the sulfur content of the natural gas combusted in this emissions unit, in grains/100 scf;
 - f. the total NO_x emissions from this emissions unit, in pounds, as recorded in d)(3)b.;
 - g. the rolling, 12-month summation of the NO_x emissions from this emissions unit, in tons, calculated by adding the total NO_x emissions for the present month as recorded in d)(6)f., plus the total NO_x emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - h. the total CO emissions from this emissions unit, in pounds, calculated by multiplying the CO emissions factor of 0.055 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(6)c. and the heat content of the natural gas consumed, as recorded in d)(6)d.;
 - i. the rolling, 12-month summation of the CO emissions from this emissions unit, in tons, calculated by adding the total CO emissions for the present month as recorded in d)(6)h., plus the total CO emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - j. the total VOC emissions from this emissions unit, in pounds, calculated by multiplying the VOC emissions factor of 0.0050 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(6)c. and the heat content of the natural gas consumed, as recorded in d)(6)d.;

- k. the rolling, 12-month summation of the VOC emissions from this emissions unit, in tons, calculated by adding the total VOC emissions for the present month as recorded in d)(6)j., plus the total VOC emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - l. the total PE/PM₁₀/PM_{2.5} emissions from this emissions unit, in pounds, calculated by multiplying the PE/PM₁₀/PM_{2.5} emissions factor of 0.0070 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(6)c. and the heat content of the natural gas consumed, as recorded in d)(6)d.;
 - m. the rolling, 12-month summation of the PE/PM₁₀/PM_{2.5} emissions from this emissions unit, in tons, calculated by adding the total PE/PM₁₀/PM_{2.5} emissions for the present month as recorded in d)(6)l., plus the total PE/PM₁₀/PM_{2.5} emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - n. the total SO₂ emissions from this emissions unit, in pounds, calculated by multiplying the SO₂ emissions factor of 0.0015 lb/MMBtu, or after testing has been completed, the results of the most recent compliance test, by the amount of natural gas consumed, as recorded in d)(6)c. and the heat content of the natural gas consumed, as recorded in d)(6)d.;
 - o. The rolling, 12-month summation of the SO₂ emissions from this emissions unit, in tons, calculated by adding the total SO₂ emissions for the present month as recorded in d)(6)n., plus the total SO₂ emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - p. the total H₂SO₄ emissions from this emissions unit, in pounds, calculated by multiplying the H₂SO₄ emissions factor of 0.00023 lb/MMBtu, or or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(6)c. and the heat content of the natural gas consumed, as recorded in d)(6)d.;
 - q. The rolling, 12-month summation of the H₂SO₄ emissions from this emissions unit, in tons, calculated by adding the total H₂SO₄ emissions for the present month as recorded in d)(6)p., plus the total H₂SO₄ emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - r. the total CO₂e emissions from this emissions unit, in pounds, calculated by multiplying the CO₂e emissions factor of 117.12 lbs/MMBtu by the amount of natural gas consumed, as recorded in d)(6)c. and the heat content of the natural gas consumed, as recorded in d)(6)d.; and
 - s. The rolling, 12-month summation of the CO₂e emissions from this emissions unit, in tons, calculated by adding the total CO₂e emissions for the present month as recorded in d)(6)r., plus the total CO₂e emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds.
- (7) See 40 CFR Part 60, Subpart Db (40 CFR 60.40b–60.49b).

(8) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575).

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 with a maximum sulfur content of 0.50 grain/100 scf 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 following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system):

a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of continuous CO₂ or O₂ monitoring system downtime and malfunction while the emissions unit was on line.

c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:

i. the facility name and address;

ii. the manufacturer and model number of the continuous NO_x and CO₂ or O₂ and other associated monitors;

iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;

- iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
- v. the total NO_x emissions for the calendar quarter (tons);
- vi. the total operating time (hours) of the emissions unit;
- vii. the total operating time of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) while the emissions unit was in operation;
- viii. results and date of quarterly cylinder gas audits;
- ix. unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
- x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x and CO₂ or O₂ monitor out-of-control and the compliant results following any corrective actions;
- xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), emissions unit, and/or control equipment;
- xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) and/or control equipment while the emissions unit was in operation; and
- xiii. the reason (if known) and the corrective actions taken (if any) for each event in (b)(xi) and (xii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

- (4) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Any exceedances of the rolling, 12-month limitation on operating hours; and
 - b. Any exceedances of the rolling, 12-month emissions limitations for NO_x, CO, VOC, PE/PM₁₀/PM_{2.5}, SO₂, H₂SO₄ and CO₂e, calculated pursuant to the equations in d)(5).

(5) See 40 CFR Part 60, Subpart Db (40 CFR 60.40b–60.49b).

(6) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575).

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 Limitations:

NO_x emissions shall not exceed 0.020 lb/MMBtu of actual heat input, 3.70 pounds per hour and 9.25 tons per rolling, 12-month period.

Applicable Compliance Method:

Initial and continuing compliance with short-term emissions limitations shall be demonstrated based upon the NO_x CEMS monitoring and recordkeeping requirements specified in d)(3).

Compliance with the annual and rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

b. Emissions Limitations:

CO emissions shall not exceed 0.055 lb/MMBtu of actual heat input, 10.18 pounds per hour and 25.45 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(3).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

c. Emissions Limitations:

VOC emissions shall not exceed 0.0050 lb/MMBtu of actual heat input, 0.93 pound per hour and 2.33 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(3).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

d. Emissions Limitations:

PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 0.0070 lb/MMBtu of actual heat input, 1.30 pounds per hour and 3.25 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(3).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

e. Emissions Limitations:

SO₂ emissions shall not exceed 0.0015 lb/MMBtu, 0.28 pound per hour and 0.70 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(3).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied SO₂ emission factor (0.0015 lb/MMBtu) by the rated heat input rate (185 MMBtu/hr).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

f. Emissions Limitations:

H₂SO₄ emissions shall not exceed 0.00023 lb/MMBtu, 0.043 pound per hour and 0.11 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(3).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

g. Emissions Limitation:

CO₂e emissions shall not exceed 54,167.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(6).

h. Emissions Limitations:

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

Applicable Compliance Method:

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

- (2) Within 60 days of achieving the maximum production rate at which the emissions unit(s) will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3.

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3 and ORC Section 3704.03(l).

Ongoing compliance with the NO_x emissions limitations shall be demonstrated through the data collected as required in the monitoring and recordkeeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

Ongoing compliance with the CO₂ or O₂ monitoring requirements contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the monitoring and record keeping section of this permit; and demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

- (3) Performance testing shall be conducted as required in OAC rules 3745-31-10 through 20. The permittee shall conduct, or have conducted, emission testing for this emissions unit 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, as applicable, in accordance with the following requirements:
- a. The emission testing shall be conducted to demonstrate compliance with the emissions limitations specified in b)(1) for CO, VOC, PE/PM₁₀/PM_{2.5}, SO₂ and H₂SO₄.



- b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):
 - for CO, Methods 1-4 and 10 of 40 CFR Part 60 Appendix A;
 - for VOC, Methods 1-4 and 18 and 25 of 40 CFR Part 60 Appendix A;
 - for PE/PM₁₀/PM_{2.5}, Methods 1-5 of 40 CFR Part 60 Appendix A and Method 202 of 40 CFR Part 51 Appendix M;
 - for SO₂, 40 CFR 60.4415(a) for fuel sulfur content; and
 - for H₂SO₄, Methods 1-4 and 8 of 40 CFR Part 60 Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.
 - c. The test(s) for each pollutant shall be conducted while the emissions unit is operating at or near its maximum capacity, while burning representative fuel and/or combination of fuels, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.
 - 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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).
 - e. Personnel from the Ohio EPA, Southeast 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, Southeast 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, Southeast District Office.
- g) Miscellaneous Requirements
- (1) None.

2. Emissions Unit Group - Combustion Turbines: P001-P003

EU ID	Operations, Property and/or Equipment Description
P001	Combustion Turbine #1; GE 7HA.02 natural gas-fired lean pre-mix combined cycle combustion turbine generator equipped with dry low-NO _x (DLN) burners nominally rated at 3,516 MMBtu/hr HHV at 100% load and -18° F exhausting through a heat recovery steam generator (HRSG) with supplemental natural gas-fired duct burners nominally rated at 997 MMBtu/hr HHV controlled with catalytic oxidation and selective catalytic reduction (SCR) and cooled with an air-cooled condenser (ACC) used to generate electricity
P002	Combustion Turbine #2; GE 7HA.02 natural gas-fired lean pre-mix combined cycle combustion turbine generator equipped with DLN burners nominally rated at 3,516 MMBtu/hr HHV at 100% load and -18° F and exhausting through a HRSG with supplemental natural gas-fired duct burners nominally rated at 997 MMBtu/hr HHV controlled with catalytic oxidation and SCR and cooled with an ACC used to generate electricity
P003	Combustion Turbine #3; GE 7HA.02 natural gas-fired lean pre-mix combined cycle combustion turbine generator equipped with DLN burners nominally rated at 3,516 MMBtu/hr HHV at 100% load and -18° F and exhausting through a HRSG with supplemental natural gas-fired duct burners nominally rated at 997 MMBtu/hr HHV controlled with catalytic oxidation and SCR and cooled with an ACC used to generate electricity

- 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 rules 3745-31-10 through 3745-31-20 and 3745-31-34	<p>Emissions Limits without Duct Burner Firing</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 2.0 ppmvd at 15% oxygen (O₂) and 26.37 pounds per hour, excluding periods of startup and shutdown.</p> <p>Carbon monoxide (CO) emissions shall not exceed 2.0 ppmvd at 15% O₂ and 16.17 pounds per hour, excluding periods</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>of startup and shutdown.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 1.0 ppmvd at 15% O₂ and 4.92 pounds per hour, excluding periods of startup and shutdown.</p> <p>Particulate emissions (PE) and emissions of particulate matter with a diameter less than 10 microns (PM₁₀) and particulate matter less than 2.5 microns (PM_{2.5}) shall not exceed 0.0073 lb/MMBtu and 12.30 pounds per hour.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.0015 pound/MMBtu and 5.27 pounds per hour.</p> <p>Sulfuric acid (H₂SO₄) emissions shall not exceed 0.0011 pound/MMBtu and 3.87 pounds per hour.</p> <p>Carbon dioxide equivalent (CO₂e) emissions shall not exceed 846 lb/MW-hr gross energy output at full load ISO conditions. Gross energy output is defined as the gross power output of the generators before accounting for any balance of plant loads.</p> <p>Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.</p> <p>Emissions Limits with Duct Burner Firing</p> <p>NO_x emissions shall not exceed 2.0 ppmvd at 15% O₂ and 33.85 pounds per hour, excluding periods of startup and shutdown.</p> <p>CO emissions shall not exceed 2 ppmvd at 15% O₂ and 20.76 pounds per hour, excluding periods of startup and shutdown.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>VOC emissions shall not exceed 2.0 ppmvd at 15% O₂ and 11.73 pounds per hour, excluding periods of startup and shutdown.</p> <p>PE/PM₁₀/PM_{2.5} emissions shall not exceed 0.0073 lb/MMBtu and 23.30 pounds per hour.</p> <p>SO₂ emissions shall not exceed 0.0015 lb/MMBtu and 6.77 pounds per hour.</p> <p>H₂SO₄ emissions shall not exceed 0.0011 lb/MMBtu and 4.96 pounds per hour.</p> <p>The emissions limitation specified by this rule for CO₂e emissions is equivalent to the requirements in 40 CFR Part 60, Subpart TTTT.</p> <p>Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.</p> <p>Emissions from emissions units P001-P003, combined, shall not exceed:</p> <p>422.19 tons of NO_x per rolling, 12-month period, including start-up and shutdown emissions.</p> <p>300.61 tons of CO emissions per rolling, 12-month period, including start-up and shutdown emissions.</p> <p>146.91 tons of VOC emissions per rolling, 12-month period, including start-up and shutdown emissions.</p> <p>290.39 tons of PE/PM₁₀/PM_{2.5} per rolling, 12-month period.</p> <p>88.96 tons of SO₂ per rolling, 12-month period.</p> <p>65.17 tons of H₂SO₄ emissions per</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		rolling, 12-month period. 7,056,798 tons of CO ₂ e emissions per rolling, 12-month period. See b)(2)a.-e. and c)(1) below.
b.	ORC 3704.03(T) and OAC rule 3745-31-05(A)(3)	The emissions limitations for NO _x , CO, VOC, PE/PM ₁₀ /PM _{2.5} and SO ₂ required by this rule are equivalent to the emissions limitations for NO _x , CO, VOC, PE/PM ₁₀ /PM _{2.5} and SO ₂ established pursuant to OAC rules 3745-31-10 through 3745-31-20.
c.	OAC rules 3745-17-07(A), 3745-17-10 (HRSG duct burners) and 3745-17-11(B)(4) (Turbine)	The PE limitations specified by these rules are less stringent than the limitations established pursuant to OAC rules 3745-31-10 through 3745-31-20.
d.	OAC rule 3745-18-06(F)	Exempt pursuant to OAC rule 3745-18-06(A) since only natural gas fuel is burned in this emissions unit.
e.	40 CFR Part 75 and OAC Chapter 3745-103	See b)(2)f. below.
f.	OAC rule 3745-110-03	Exempt pursuant to OAC rule 3745-110-03(K)(20) because this emissions unit is subject to BACT requirements for NO _x emissions.
g.	40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 60.4420) [In accordance with 40 CFR 60.4300 and 60.4305(a), this emissions unit is a stationary combustion turbine with a heat input at peak load (HHV) equal to or greater than 10.7 gigajoules (10 MMBtu) per hour, based on the higher heating value of the fuel, and associated heat recovery steam generator with duct burners that commenced construction, modification, or reconstruction after February 18, 2005, subject to the emissions limitations/control measures specified in this section.]	NO _x emissions from new combustion turbines firing natural gas with heat input capacities at peak load (HHV) greater than 850 MMBtu/hr shall not exceed 15 ppm at 15% O ₂ or 54 ng/J of useful output (0.43 lb/MWh). [40 CFR 60.4320(a) and Table 1 of 40 CFR Part 60, Subpart KKKK] SO ₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or, fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO ₂ /MMBtu heat input. [40 CFR 60.4330(a)] See b)(2)g. below.
h.	40 CFR Part 60, Subpart TTTT	Carbon dioxide (CO ₂) emissions shall not

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	(40 CFR 60.5508 – 60.5580) [In accordance with 40 CFR 60.5508 and 60.5509(a), this emissions unit is a stationary combustion turbine (EGU) that commenced construction after June 18, 2014 and has a base load rating greater than 250 MMBtu/hour and serving a generator capable of selling greater than 25 MW of electricity to a utility power distribution system, subject to the emissions limitations/control measures specified in this section.]	exceed 450 kg per MW-h of gross energy output (1,000 lbs/MW-h) on a 12-operating-month rolling average basis, or, if a petition is granted, CO ₂ emissions shall not exceed 470 kg per MW-h of net energy output (1,030 lbs/MW-h) on a 12-operating-month rolling average basis. [40 CFR 60.5520(a)-(c) and Table 2 of 40 CFR Part 60, Subpart TTTT]
i.	40 CFR Part 60, Subpart A (40 CFR 60.1 – 60.19)	General Provisions Table 3 of 40 CFR Part 60, Subpart TTTT shows which parts of the General Provisions in 40 CFR 63.1 through 19 do not apply. [40 CFR 60.5570 and Table 3 of 40 CFR Part 60, Subpart TTTT)
j.	40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175) [In accordance with 40 CFR 63.6080, 63.6085 and 63.6090(a)(2), this emissions unit is a new stationary combustion turbine for which construction commenced after January 14, 2003 located at a major source of HAP emissions subject to the emissions limitations/control measures specified in this section.]	See b)(2)h. below.
k.	40 CFR Part 63, Subpart A (40 CFR 63.1 – 63.16)	Table 7 of 40 CFR Part 63, Subpart YYYY shows which parts of the General Provisions in 40 CFR 63.1 through 16 apply.

(2) Additional Terms and Conditions

- a. As part of the Best Available Control Technology (BACT) determination for NO_x, the permittee shall install and maintain dry low NO_x burners and an SCR system on this emissions unit. Operation of these control systems shall reduce NO_x emissions to the limitations specified in b)(1)a.

- b. As part of the BACT determination for CO and VOC, the permittee shall install and operate an oxidation catalyst and shall operate the emissions unit in accordance with good combustion practices as recommended by the manufacturer to ensure compliance with the CO and VOC limitations specified in b)(1)a.
- c. As part of the BACT determination for visible PE, PM/PM₁₀/PM_{2.5}, SO₂ and H₂SO₄ emissions, the permittee shall only burn only natural gas (as specified in c)(1)) in this emissions unit to ensure compliance with the PM/PM₁₀/PM_{2.5}, SO₂ and H₂SO₄ limitations specified in b)(1)a.
- d. As part of the BACT determination for CO_{2e}, the permittee shall operate the emissions unit using high efficiency combustion practices as recommended by the manufacturer to ensure compliance with the CO_{2e} limitations specified in b)(1)a.
- e. The permittee shall comply with the following requirements during periods of startup and shutdown.

Emissions Limitations During Startup and Shutdown (lbs/hr)^a				
	Cold Startup	Warm Startup	Hot Startup	Shutdown
NO_x	266.7	140.7	88.4	32.7
CO	791.6	161.5	133.0	139.6
VOC	55.9	13.7	16.5	34.9
^a Pound per hour emissions rates as presented are the maximum rates during any hour during the event from each unit.				

Operating modes of the combined cycle combustion turbine are defined as follows:

Operating Mode	Definition
Cold Startup	When the combustion turbine has been shut down for more than 72 hours
Warm Startup	When the combustion turbine has been shut down for a period from 8 to 72 hours
Hot Startup	When the combustion turbine has been shut down for less than 8 hours
Startup	Begins when fuel flow to the combustion turbine starts and ends once stack emissions are in compliance
Steady-state	When the combustion turbine is achieving emission compliance, typically between approximately 40% and

	100%. The duct burners may operate when the combustion turbine is in steady-state.
Shutdown	Begins when the first CEM data point out of compliance with either the CO or NO _x ppmvd emission limit that occurs after load is reduced below Steady-state in conjunction with the process of ceasing operation of the unit, and ends when fuel flow to the turbine ceases.

- f. The permittee is subject to the requirements of OAC Chapter 103 and 40 CFR Parts 72 and 75 concerning acid rain, so 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.
- g. Only heat input to the combustion turbine should be included when determining whether or not NSPS Subpart KKKK is applicable to your turbine. Any additional heat input to associated heat recovery steam generators (HRSG) or duct burners should not be included when determining your peak heat input. However, this subpart does apply to emissions from any associated HRSG and duct burners.
- h. Stay of standards for gas-fired subcategories. This new stationary combustion turbine is a lean premix gas-fired stationary combustion turbine as defined in 40 CFR 63.6175. The permittee must comply with the Initial Notification requirements set forth in 40 CFR 63.6145, but need not comply with any other requirement of 40 CFR Part 63, Subpart YYYY until EPA takes final action to require compliance and publishes a document in the Federal Register.
- i. The continuous emission monitoring system consists of all the equipment used to acquire data to provide a record of emissions and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.
- j. Each continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) shall be certified to meet the requirements of 40 CFR Part 60 and 40 CFR Part 75, Appendix B and Performance Specifications 2, 3 and 6. At least 45 days before commencing certification testing of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of NO_x and CO₂ or O₂ emissions from the continuous monitor(s), in units of the applicable standard(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous NO_x monitoring system (including the associated continuous CO₂

or O₂ monitoring system) in accordance with the frequencies required pursuant to 40 CFR Part 60 and 40 CFR Part 75; or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B, in lieu of frequencies required in 40 CFR Part 60. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits pursuant to 40 CFR Part 60, and linearity checks pursuant to 40 CFR Part 75; however, linearity checks completed pursuant to 40 CFR Part 75, Appendix B, may be substituted for the quarterly cylinder gas or relative accuracy audits required per 40 CFR Part 60.

- k. Each continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) shall be certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3, 4 or 4a and 6. At least 45 days before commencing certification testing of the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system), the permittee shall develop and maintain a written quality assurance/quality control plan designed to ensure continuous valid and representative readings of CO and CO₂ or O₂ emissions from the continuous monitor(s), in units of the applicable standard(s). The fuel flow monitor/meter shall be maintained as required in Part 75, Appendix D. Except as allowed below, the plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) must be kept on site and available for inspection during regular office hours.

The plan shall include the requirement to conduct relative accuracy test audits for the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) in accordance with the frequencies required for monitoring systems subject to 40 CFR 60, or may follow relative accuracy test audit frequency requirements for monitoring systems subject to 40 CFR 75, Appendix B. In either case, results shall be recorded and reported in units of the applicable standard(s) in accordance with 40 CFR Part 60.

The plan shall include the requirement to conduct quarterly cylinder gas audits or relative accuracy audits as required in 40 CFR Part 60; however, the quarterly cylinder gas audit and relative accuracy audit frequency requirements may be adjusted to coincide with linearity checks completed for continuous emissions monitoring systems subject to 40 CFR Part 75, Appendix B requirements.

- l. See 40 CFR Part 60, Subpart TTTT (40 CFR 60.5508 – 60.5580).

c) Operational Restrictions

- (1) The permittee shall burn only pipeline quality natural gas with a maximum sulfur content not exceed 0.50 grain/100 scf in this emissions unit.

- (2) Except during periods of startup, the SCR system for this emissions unit shall be in operation at all times, including during the shutdown of the unit.
 - (3) In accordance with good engineering practices, the SCR unit shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.
 - (4) See 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 60.4420).
 - (5) See 40 CFR Part 60, Subpart TTTT (40 CFR 60.5508 – 60.5580).
 - (6) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than pipeline quality natural gas with a maximum sulfur content of 0.5 grain/100 scf, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the hours of operation of the combustion turbine in each operating mode;
 - b. the hours of operation of the duct burners;
 - c. the amount of gaseous fuel consumed in this emissions unit, in MMscf;
 - d. the heat content of the gaseous fuel combusted in this emissions unit, in MMBtu/MMscf;
 - e. the sulfur content of the gaseous fuel combusted in this emissions unit, in gr/dscf;
 - f. the total NO_x emissions for this emissions unit, in pounds, as recorded in d)(4)b.;
 - g. the total NO_x emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
 - h. the total CO emissions, in pounds, as recorded in d)(7)b.;
 - i. the total CO emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
 - j. the total VOC emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated by multiplying the VOC emissions factor of 0.0013 lb/MMBtu (w/o duct burner firing) or 0.0026 lb/MMBtu (w/ duct burner firing), or after testing has been completed, the results of the most recent stack test, by the amount of gaseous fuel consumed, including periods of startup/shutdown, as recorded in d)(2)c. and the heat content of the natural gas consumed, as recorded in d)(2)d.;

- k. the total VOC emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
- l. the total PE/PM₁₀/PM_{2.5} emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated by multiplying the emissions factor of 0.0073 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of gaseous fuel consumed, including periods of startup/shutdown, as recorded in d)(2)c. and the heat content of the natural gas consumed, as recorded in d)(2)d.;
- m. the total PE/PM₁₀/PM_{2.5} emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
- n. the total SO₂ emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated by multiplying the emissions factor of 0.0015 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of gaseous fuel consumed, including periods of startup/shutdown, as recorded in d)(2)c. and the heat content of the natural gas consumed, as recorded in d)(2)d.;
- o. the total SO₂ emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
- p. the total H₂SO₄ emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated by multiplying the emissions factor of 0.0011 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of gaseous fuel consumed, including periods of startup/shutdown, as recorded in d)(2)c. and the heat content of the natural gas consumed, as recorded in d)(2)d.;
- q. the total H₂SO₄ emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
- r. the total CO₂e emissions, in pounds, including startup/shutdown emissions, for this emissions unit, calculated by multiplying the CO₂e emissions factor of 119 lbs/MMBtu, by the amount of gaseous fuel consumed, including periods of startup/shutdown, as recorded in d)(2)c. and the heat content of the natural gas consumed, as recorded in d)(2)d.;
- s. the total CO₂e emissions, in pounds, including startup/shutdown emissions, for emissions units P001-P003, combined;
- t. the rolling, 12-month summation of the NO_x emissions from emissions units P001-P003, combined, in tons, including start-up/shutdown emissions, calculated by adding the total NO_x emissions for the present month as recorded in d)(2)g., plus the total NO_x emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
- u. The rolling, 12-month summation of the CO emissions from emissions units P001-P003, combined, in tons, including startup/shutdown emissions, calculated

- by adding the total CO emissions for the present month as recorded in d)(2)i., plus the total CO emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
- v. The rolling, 12-month summation of the VOC emissions from emissions units P001-P003, combined, in tons, including startup/shutdown emissions, calculated by adding the total VOC emissions for the present month as recorded in d)(2)k., plus the total VOC emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - w. The rolling, 12-month summation of the PE/PM₁₀/PM_{2.5} emissions from emissions units P001-P003, combined, in tons, including startup/shutdown emissions, calculated by adding the total PE/PM₁₀/PM_{2.5} emissions for the present month as recorded in d)(2)m., plus the total PE/PM₁₀/PM_{2.5} emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - x. The rolling, 12-month summation of the SO₂ emissions from emissions units P001-P003, combined, in tons, including startup/shutdown emissions, calculated by adding the total SO₂ emissions for the present month as recorded in d)(2)o., plus the total SO₂ emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - y. The rolling, 12-month summation of the H₂SO₄ emissions from emissions units P001-P003, combined, in tons, including startup/shutdown emissions, calculated by adding the total H₂SO₄ emissions for the present month as recorded in d)(2)q., plus the total H₂SO₄ emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds; and
 - z. The rolling, 12-month summation of the CO₂e emissions from emissions units P001-P003, combined, in tons, including startup/shutdown emissions, calculated by adding the total CO₂e emissions for the present month as recorded in d)(2)s., plus the total CO₂e emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds.
- (3) Prior to the installation of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3. The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) meets the requirements of Performance Specifications 2 and 3 and the accuracy requirements of Performance Specification 6.

Following installation, the permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of NO_x is being calculated stoichiometrically. The U.S. EPA shall certify that the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) meets the requirements under 40 CFR Part 75, which may be approved through the recommendation for certification by Ohio EPA to U.S. EPA. Once received, the

letter(s)/document(s) of certification under Part 60 and certification or recommendation for certification under Part 75 shall be maintain on-site and made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

- (4) The permittee shall install, operate and maintain equipment to continuously monitor and record NO_x and CO₂ or O₂ emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60 and/or Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) including, but not limited to:

- a. emissions of NO_x in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of NO_x in pounds per hour and in units of the applicable standard(s) in the appropriate averaging period;
- c. the percent CO₂ or O₂ with each cycle time of the analyzer, with no resolution less than one data point per minute required;
- d. results of quarterly cylinder gas audits or linearity checks;
- e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);
- g. hours of operation of the emissions unit, continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), and control equipment;
- h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system);
- i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system); as well as,
- j. the reason (if known) and the corrective actions taken (if any) for each such event in d)(5)h. and i.

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (5) The permittee may operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of NO_x , in pounds per hour, as an alternative to conducting Specification 6. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as, the reason (if known) and the corrective actions taken (if any) for each such event.
- (6) Prior to the installation of the continuous CO monitoring system (including the associated continuous CO_2 or O_2 monitoring system), the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate). The Ohio EPA, Central Office shall approve the proposed sampling site and certify that the continuous CO monitoring system meets the requirements of Performance Specifications 3 and 4 or 4a and the accuracy requirements of Performance Specification 6.

Following installation, the permittee shall document that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test, and shall demonstrate how the pound per hour emissions of CO is being calculated stoichiometrically. Once received, the letter(s)/document(s) of certification shall be maintained on-site and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

- (7) The permittee shall operate and maintain equipment to continuously monitor and record CO and CO_2 or O_2 emissions from this emissions unit in units of the applicable standard(s). The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Parts 60.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to:

- a. emissions of CO in parts per million for each cycle time of the analyzer, with no resolution less than one data point per minute required;
- b. emissions of CO in pounds per month;
- c. the percent CO_2 or O_2 with each cycle time of the analyzer, with no resolution less than one data point per minute required;
- d. results of quarterly cylinder gas audits;
- e. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
- f. results of required relative accuracy test audit(s), including results in units of the applicable standard(s);

- g. hours of operation of the emissions unit, continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system), and control equipment;
- h. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system);
- i. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system); as well as,
- j. the reason (if known) and the corrective actions taken (if any) for each such event in (h) and (i).

All valid data points generated and recorded by the continuous emission monitoring and data acquisition and handling system shall be used in the calculation of the pollutant concentration and/or emission rate over the appropriate averaging period.

- (8) The permittee may operate and maintain equipment to continuously monitor and record the fuel flow rate in order to stoichiometrically calculate emissions of CO in pounds per hour, as an alternative to conducting Specification 6. Fuel heat content values for each fuel burned, as applied in the stoichiometric calculations, shall also be recorded. The permittee shall maintain records of data obtained by the fuel flow monitor/meter, including the dates and results of each calibration check and the magnitude of calibration adjustments; periods of downtime and malfunction of the fuel flow monitor/meter; as well as, the reason (if known) and the corrective actions taken (if any) for each such event.
- (9) The permittee shall collect, record, and maintain measurements, data, records, and reports required per 40 CFR Part 75; and shall submit certification, recertification, notifications, applications, monitoring plans, petitions for alternative monitoring systems, electronic quarterly reports, and any other pertinent record and/or report to the Administrator (U.S. EPA), as required by Part 75.
- (10) The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

Fuel flow data that is substituted in accordance with 40 CFR Part 75, Appendix D, is not to be used when verifying compliance with the hourly NO_x and CO pounds per hour emission limits. Hours in which fuel flow is substituted should be included as NO_x and CO monitoring system downtime.

- (11) The permittee shall monitor the sulfur content and gross caloric value of the fuel being fired in the combustion turbine and duct burners, representative fuel sampling shall be

conducted which shows that the sulfur content of the fuel does not exceed 1.5E-03 lb SO₂/MMBtu heat input. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to 40 CFR 75 is required

- (12) The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner, in MMBtu, from the fuel flow rate as determined in d)(9) and gross calorific value as determined in d)(10). The heat input rate shall be calculated in accordance with the procedures in section 5 of 40 CFR Part 75, Appendix F.
- (13) See 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 60.4420).
- (14) See 40 CFR Part 60, Subpart TTTT (40 CFR 60.5508 – 60.5580).
- (15) See 40 CFR Part 63, Subpart YYYYY (40 CFR 63.6080 – 63.6175).

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 pipeline quality natural gas with a maximum sulfur content of the natural gas of 0.5 grain/100 standard cubic feet was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the NO_x, CO, and/or VOC start-up/shutdown limitations; and
 - b. all exceedances of the rolling, 12-month NO_x, CO, VOC, PE/PM₁₀/PM_{2.5}, SO₂ and/or H₂SO₄ emissions limitations.

These quarterly reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (4) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system):
 - a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of NO_x emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapters 3745-14 and 3745-23, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as the reason (if known)

and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).

- b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of continuous CO₂ or O₂ monitoring system downtime and malfunction while the emissions unit was on line.
- c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
 - i. the facility name and address;
 - ii. the manufacturer and model number of the continuous NO_x and CO₂ or O₂ and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total NO_x emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) while the emissions unit was in operation;
 - viii. results and date of quarterly cylinder gas audits or linearity checks;
 - ix. unless previously submitted, results and date of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous NO_x and CO₂ or O₂ monitor out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction** of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), emissions unit, and/or control equipment;
 - xii. the date, time, and duration of any downtime** of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂

monitoring system) and/or control equipment while the emissions unit was in operation; and

- xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(4)c.xi. and xii.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless if there is an exceedance of any applicable limit

- (5) If using the fuel flow rate to stoichiometrically calculate the pound per hour emissions of NO_x in place of Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA District Office or local air agency, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.
- (6) The permittee shall comply with the following quarterly reporting requirements for the emissions unit and its continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system):
- a. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of CO emissions in excess of any applicable limit specified in this permit, 40 CFR Part 60, OAC Chapter 3745-21, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude of each exceedance, as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. Excess emissions shall be reported in units of the applicable standard(s).
 - b. Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency, documenting all instances of continuous CO₂ or O₂ monitoring system downtime and malfunction while the emissions unit was on line.

- c. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall include the following:
- i. the facility name and address;
 - ii. the manufacturer and model number of the continuous CO and CO₂ or O₂ and other associated monitors;
 - iii. a description of any change in the equipment that comprises the continuous emission monitoring system (CEMS), including any change to the hardware, changes to the software that may affect CEMS readings, and/or changes in the location of the CEMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total CO emissions for the calendar quarter (tons);
 - vi. the total operating time (hours) of the emissions unit;
 - vii. the total operating time of the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) while the emissions unit was in operation;
 - viii. results and dates of quarterly cylinder gas audits;
 - ix. unless previously submitted, results and dates of the relative accuracy test audit(s), including results in units of the applicable standard(s), (during appropriate quarter(s));
 - x. unless previously submitted, the results of any relative accuracy test audit showing the continuous CO and CO₂ or O₂ monitor out-of-control and the compliant results following any corrective actions;
 - xi. the date, time, and duration of any/each malfunction** of the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system), and/or emissions unit;
 - xii. the date, time, and duration of any downtime** of the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) while the emissions unit was in operation; and
 - xiii. the reason (if known) and the corrective actions taken (if any) for each event in e)(6)c.xi. and xii.

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

* where no excess emissions have occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the EER quarterly report

** each downtime and malfunction event shall be reported regardless of whether there is an exceedance of any applicable limit

- (7) If using the fuel flow rate to stoichiometrically calculate the pound per hour emissions of CO, in place of Specification 6 requirements, the permittee shall submit quarterly reports, to the appropriate Ohio EPA District Office or local air agency, that document the date, time, and duration of each malfunction and/or period of downtime of the continuous fuel flow monitoring system, while the emissions unit was in operation, and the reason (if known) and the corrective actions taken (if any) for each such event. If there was no downtime or malfunction of the continuous fuel flow monitoring system during any calendar quarter, the report shall be submitted so stating it. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year.
 - (8) See 40 CFR Part 60, Subpart KKKK (40 CFR 60.4300 – 60.4420).
 - (9) See 40 CFR Part 60, Subpart TTTT (40 CFR 60.5508 – 60.5580).
 - (10) See 40 CFR Part 63, Subpart YYYY (40 CFR 63.6080 – 63.6175).
- 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 for this emission unit:
 - a. Emissions Limitations:

NO_x emissions without duct burner firing shall not exceed 2.0 ppmvd at 15% O₂ and 26.37 pounds per hour, excluding periods of startup and shutdown.

NO_x emissions with duct burner firing shall not exceed 2.0 ppmvd at 15% O₂ and 33.85 pounds per hour, excluding periods of startup and shutdown.

NO_x emissions from new combustion turbines firing natural gas with heat input capacities greater than 850 MMBtu/hr shall not exceed 15 ppm at 15% O₂ calculated on a 30-day rolling average or 54 ng/J of useful output (0.43 lb/MWh).

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emissions limitations shall be demonstrated through emissions testing performed as described in f)(4) below.

Ongoing compliance with the short-term NO_x emissions limitations shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

Ongoing compliance with the CO₂ or O₂ monitoring requirements contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and demonstration of compliance with the quality assurance/quality control plan, which shall meet all of the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

b. Emissions Limitations:

CO emissions without duct burner firing shall not exceed 2.0 ppmvd at 15% O₂ based on a 24-hour block averaging period and 16.17 lbs/hr, excluding periods of startup and shutdown.

CO emissions with duct burner firing shall not exceed 2.0 ppmvd at 15% O₂ based on a 24-hour block averaging period and 20.76 lbs/hr, excluding periods of startup and shutdown.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emissions limitations shall be demonstrated through emissions testing performed as described in f)(4) below.

Ongoing compliance with the short-term CO emission limitations shall be demonstrated through the data collected as required in the Monitoring and Recordkeeping section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the requirements of 40 CFR Part 60.

Ongoing compliance with the CO₂ or O₂ monitoring requirements contained in this permit, 40 CFR Parts 60 and 75, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and Record keeping Section of this permit; and demonstration of compliance with the quality assurance/quality control plan, which shall meet all of the testing and recertification requirements of 40 CFR Part 60 and 40 CFR Part 75.

c. Emissions Limitations:

VOC emissions without duct burner firing shall not exceed 1.0 ppmvd at 15% O₂ and 4.92 lbs/hr, excluding periods of startup and shutdown.

VOC emissions with duct burner firing shall not exceed 2.0 ppmvd at 15% O₂ and 11.73 lbs/hr, excluding periods of startup and shutdown.

Applicable Compliance Method:

Compliance with the short-term VOC emissions limitations shall be demonstrated by the testing requirements in f)(4).

d. Emissions Limitations:

PE/PM₁₀/PM_{2.5} emissions without duct burner firing shall not exceed 12.30 lbs/hr.

PE/PM₁₀/PM_{2.5} emissions with duct burner firing shall not exceed 23.30 lbs/hr.

Applicable Compliance Method:

Compliance with the short-term PE/PM₁₀/PM_{2.5} emissions limitations shall be demonstrated by the testing requirements in f)(4).

e. Emissions Limitations:

SO₂ emissions without duct burner firing shall not exceed 5.27 lbs/hr.

SO₂ emissions with duct burner firing shall not exceed 6.77 lbs/hr.

SO₂ emissions from the turbine must not exceed 0.90 lb/MWh of gross output, or, fuels burned in the turbine must not contain sulfur in concentrations which would result in potential sulfur emissions in excess of 0.060 lb SO₂ MMBtu heat input.

Applicable Compliance Methods:

Compliance with the short-term SO₂ emissions limitations shall be demonstrated by the monitoring requirements in d)(11) and the testing requirements in f)(4).

f. Emissions Limitations:

H₂SO₄ emissions without duct burner firing shall not exceed 3.87 lb/hr.

H₂SO₄ emissions with duct burner firing shall not exceed 4.96 lb/hr.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(4).

g. Emissions Limitation:

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

Applicable Compliance Method:

Compliance with the visible PE limitation shall be demonstrated by the testing requirements in f)(4).

h. Emissions Limitations:

Emissions from emissions units P001-P003, combined, shall not exceed:



422.19 tons of NO_x per rolling, 12-month period, including start-up and shutdown emissions.

300.61 tons of CO emissions per rolling, 12-month period, including start-up and shutdown emissions.

146.91 tons of VOC emissions per rolling, 12-month period, including start-up and shutdown emissions.

290.39 tons of PE/PM10/PM2.5 per rolling, 12-month period.

88.96 tons of SO₂ per rolling, 12-month period.

65.17 tons of H₂SO₄ emissions per rolling, 12-month period.

7,056,798 tons of CO₂e emissions per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emissions limitations shall be demonstrated by the recordkeeping in d)(2).

i. Emission Limitation:

CO₂e emissions shall not exceed 846 lb/MW-hr gross energy output (at full load ISO conditions without duct firing).

Applicable Compliance Method:

Since more than 99% of the CO₂e emissions result from CO₂ emissions, compliance with the 846 lb/MW-hr gross energy output limitation will be assumed if the CO₂ emissions determined during initial testing conducted per f)(2) at base load are determined to not exceed 846 lb/MW-hr gross energy output.

j. Emissions Limitation:

Carbon dioxide (CO₂) emissions shall not exceed 450 kg per MW-h of gross energy output (1,000 lbs/MW-h) on a 12-operating-month rolling average basis, or, if a petition is granted, CO₂ emissions shall not exceed 470 kg per MW-h of net energy output (1,030 lbs/MW-h) on a 12-operating-month rolling average basis.

Applicable Compliance Method:

Compliance with the output based emissions limitation shall be demonstrated by the procedures in 40 CFR 60.5535 and 60.5540.

k. Emissions Limitation:

The permittee shall burn only pipeline quality natural gas with a maximum sulfur content not exceed 0.5 grains per 100 standard cubic feet in this emissions unit.

Applicable Compliance Method:

Compliance with the fuel sulfur content limitations shall be demonstrated by the testing requirements in f)(4) and the recordkeeping requirements in d)(13).

I. Emissions Limitations:

NO_x emissions during startup and shutdown shall not exceed 266.7 lbs/hr during cold startup, 140.7 lbs/hr during warm startup, 88.4 lbs/hr during hot startup and 32.7 lbs/hr during shutdown.

CO emissions during startup and shutdown shall not exceed 791.6 lbs/hr during cold startup, 161.5 lbs/hr during warm startup, 133.0 lbs/hr during hot startup and 139.6 lbs/hr during shutdown.

VOC emissions during startup and shutdown shall not exceed 55.9 lbs/hr during cold startup, 13.7 lbs/hr during warm startup, 16.5 lbs/hr during hot startup and 34.9 lbs/hr during shutdown.

Applicable Compliance Method:

These emissions limitations are based on manufacturer's data.

Compliance with the CO and NO_x lbs/hr startup and shutdown emissions limitations shall be demonstrated using the continuous emissions monitoring system based on a 1-hour block average.

Compliance with the VOC lbs/hr startup and shutdown emissions limitations shall be demonstrated through the record keeping requirements specified in d)(2) of this permit.

- (2) Within 60 days of achieving the maximum production rate at which the emissions unit(s) will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system), in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; Performance Specification 6 relative accuracy requirements; ORC section 3704.03(I); and 40 CFR Part 75.

The permittee shall certify that the fuel flow monitor/meter meets 40 CFR 75 certification requirements prior to the performance specification test and shall demonstrate how the pound per hour emissions of NO_x and CO₂ or O₂ will be calculated stoichiometrically from the fuel flow rate.

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 45 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA

Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification, or recommendation for certification by Ohio EPA to U.S. EPA, of the continuous NO_x monitoring system (including the associated continuous CO₂ or O₂ monitoring system) shall be granted upon determination by the Ohio EPA, Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 2 and 3; Performance Specification 6 relative accuracy requirements; ORC section 3704.03(I); and 40 CFR Part 75.

- (3) Within 60 days of achieving the maximum production rate at which the emissions unit(s) will be operated, but not later than 180 days after initial startup, the permittee shall conduct certification tests of the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) in units of the applicable standard(s), to demonstrate compliance with 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate) and 6; and ORC section 3704.03(I).

Personnel from the Ohio EPA Central Office and the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to Ohio EPA, one copy to the appropriate Ohio EPA District Office or local air agency and one copy to Ohio EPA Central Office, and pursuant to OAC rule 3745-15-04, within 30 days after the test is completed.

Certification of the continuous CO monitoring system (including the associated continuous CO₂ or O₂ monitoring system) shall be granted upon determination by the Ohio EPA Central Office that the system meets the requirements of 40 CFR Part 60, Appendix B, Performance Specifications 3 and 4 or 4a (as appropriate) and 6 and ORC section 3704.03(I).

- (4) The permittee shall conduct, or have conducted, emission testing for this emission unit in accordance with OAC rule 3745-31-10 through 3745-31-20, CFR 60.8, 60.4405 and 60.4415 and the following requirements:
- a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the modified facility will be operated, but not later than 180 days after initial startup of the modified unit. Subsequent SO₂ performance tests shall be conducted on an annual basis (no more than 14 calendar months following the previous performance test) using one of the three methodologies in 60.4415(a).
 - b. The emission testing shall be conducted to demonstrate initial compliance with the NO_x and CO outlet concentrations, the lb/hr emissions limitations for NO_x, CO, VOC, and PE and PM₁₀/PM_{2.5}, the visible PE limit and for SO₂, the fuel sulfur content after modification.
 - c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

NO _x	Method 7E or 20 of 40 CFR Part 60, Appendix A
CO	Methods 1-4 and 10 of 40 CFR Part 60, Appendix A
VOC	Methods 1-4, 18 and 25A of 40 CFR Part 60, Appendix A
PE	Methods 1-5 of 40 CFR Part 60, Appendix A
PM ₁₀ /PM _{2.5}	Methods 1-4 of 40 CFR Part 60, Appendix A and Methods 201/201A and 202 as set forth in 40 CFR Part 51, Appendix M
CO ₂	Methods 1-4 of 40 CFR Part 60, Appendix A, mass balance calculations using ASTM D1945-03 (Standard Test Method for Analysis of Natural Gas by Gas Chromatography) and/or ASTM D1826-94 (Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter).
VEs	Method 9 of 40 CFR Part 60, Appendix A
SO ₂ (fuel sulfur content)	40 CFR 60.4415(a)
H ₂ SO ₄	Methods 1-4 and 8 of 40 CFR Part 60 Appendix A

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

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Southeast District Office. 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 Ohio EPA Southeast 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 Southeast District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Southeast 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.
- 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



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Ohio EPA Southeast 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 Southeast District Office.

- g) Miscellaneous Requirements
 - (1) None.

3. Emissions Unit Group - Emergency Generators: P004 and P005

EU ID	Operations, Property and/or Equipment Description
P004	Emergency Generator #1; 1,645 kW (2,206 HP) emergency diesel-fired generator to provide on-site emergency power capabilities independent of the utility grid
P005	Emergency Generator #2; 1,645 kW (2,206 HP) emergency diesel-fired generator to provide on-site emergency power capabilities independent of the utility grid

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) b)(1)c. and b)(2)e.

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 rules 3745-31-10 through 20 and 3745-31-34	<p>Non-methane hydrocarbon plus nitrogen oxides (NMHC+NO_x) emissions shall not exceed 6.40 g/kW-hour, 23.21 pounds per hour and 1.16 tons per rolling, 12-month period.</p> <p>Carbon monoxide (CO) emissions shall not exceed 3.5 g/kW-hour, 12.69 pounds per hour and 0.63 ton per rolling, 12-month period.</p> <p>Particulate emissions (PE), emissions of particulate matter less than 10 microns (PM₁₀) and emissions of particulate matter less than 2.5 microns (PM_{2.5}) shall not exceed 0.20 g/kW-hour, 0.73 pound per hour and 0.037 ton per rolling, 12-month period.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.0015 pound per million Btu, 0.022 pound per hour and 0.0011 ton per year.</p> <p>Hydrogen sulfide (H₂SO₄) emissions shall</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>not exceed 0.00023 lb/MMBtu, 0.0034 pound per hour and 0.00017 ton per rolling, 12-month period.</p> <p>Carbon dioxide equivalent (CO_{2e}) emissions shall not exceed 120.0 tons per rolling, 12-month period.</p> <p>See b)(2)a.-c. and c)(1) below.</p>
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	<p>The emissions limitations for NO_x, CO, volatile organic compounds (VOC), PE/PM₁₀/PM_{2.5} and SO₂ required by this rule are equivalent to the emissions limitations for NO_x, CO, VOC, PE/PM₁₀/PM_{2.5} and SO₂ established pursuant to OAC rules 3745-31-10 through 3745-31-20.</p> <p>Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO_{2e} emissions from this air contaminant source pursuant to OAC rule 3745-31-34(E)(8).</p> <p>See b)(2)d. and c)(1) below.</p>
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	<p>BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, VOC, CO, PE/PM₁₀/PM_{2.5} and SO₂ emissions from this air contaminant source since the calculated annual emission rates are less than 10 tons/year taking into account the federally enforceable limits in OAC rules 3745-31-10 through 20 and 40 CFR Part 60, Subpart III.</p> <p>See b)(2)e. below.</p>
d.	OAC rule 3745-17-07(A)	<p>The emission limitation required by this rule is less stringent than the emissions limitation for PE established pursuant to 40 CFR Part 60, Subpart III.</p>
e.	OAC rule 3745-17-11(B)	<p>The emission limitation required by this rule is less stringent than the emissions limitation for PE established pursuant to OAC rules 3745-31-10 through 20.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	OAC rule 3745-18-06	The emissions limitation required by this rule is less stringent than the emissions limitations required pursuant to OAC rules 3745-31-10 through 3745-31-20 and 40 CFR Part 60, Subpart IIII.
g.	OAC rule 3745-110-03	Exempt pursuant to OAC rule 3745-110-03(K)(20) because this emissions unit is subject to BACT requirements for NO _x emissions.
h.	<p>40 CFR 60, Subpart IIII (40 CFR 60.4200 – 4219)</p> <p>[In accordance with 40 CFR 60.4200(a)(2)(i) and 60.4205(b), this emissions unit is a 1,645 kW (2,206 HP) emergency stationary compression ignition (CI) internal combustion engine (ICE) manufactured after April 1, 2006 with a displacement of less than 30 liters per cylinder subject to the emissions limitations/control measures specified in this section.]</p>	<p>The emissions limitations required by this rule for NMHC+NO_x, CO, PE/PM₁₀/PM_{2.5} and SO₂ are equivalent to the emissions limitations required by OAC rules 3745-31-10 through 20 for NO_x+NMHC, CO, PE/PM₁₀/PM_{2.5} and SO₂.</p> <p>Exhaust opacity from CI RICE must not exceed:</p> <p>20 percent during the acceleration mode; 15 percent during the lugging mode; and 50 percent during the peaks in either the acceleration or lugging modes.</p> <p>[40 CFR 60.4205(b), 40 CFR 60.4202(a)(2), 40 CFR 89.112 and 40 CFR 89.113, and 40 CFR 60.4207(b) and 40 CFR 80.510(b)]</p> <p>See b)(2)f. and c)(1) and (2) below.</p>
i.	40 CFR 60.1 – 19 (40 CFR 60.4218)	Table 8 of Subpart IIII of 40 CFR Part 60 – Applicability of General Provisions to Subpart IIII, specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to this subpart.
j.	<p>40 CFR 63, Subpart ZZZZ (40 CFR 63.6580 – 6675)</p> <p>[In accordance with 40 CFR 63.6585, 63.6590(a)(2)(i) and 63.6590(b)(1)(i), this emissions unit is an emergency stationary reciprocating internal combustion engine (RICE) with a site rating of more than 500 brake HP located at a major source of hazardous air</p>	See e)(5) below.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	pollutant (HAP) emissions for which construction commenced after December 19, 2002.]	
k.	40 CFR 63.1 – 16 (40 CFR 63.6665)	Table 8 of Subpart ZZZZ of 40 CFR Part 63 – Applicability of General Provisions to Subpart ZZZZ, specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to this subpart.

(2) Additional Terms and Conditions

- a. As part of the Best Available Control Technology (BACT) determination for NMHC, NO_x, CO and PE/PM₁₀/PM_{2.5}, this emissions unit shall be certified to the meet the emissions standards in 40 CFR 89.112 and 89.113 pursuant to 40 CFR 60.4205(b) and 60.4202(a)(2), shall employ good combustion practices per the manufacturer’s operating manual, and shall not operate more than 100 hours per year of non-emergency use. Compliance with these requirements shall be demonstrated by compliance with the short-term NMHC+NO_x, CO and PE/PM₁₀/PM_{2.5} emissions limitations in b)(1)a.
- b. As part of the BACT determination for SO₂ and H₂SO₄, the permittee shall burn only ultra-low sulfur diesel (ULSD) fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight) in this emissions unit. Compliance with this requirement shall be demonstrated by compliance with the SO₂ and H₂SO₄ emissions limitations in b)(1)a.
- c. As part of the BACT determination for CO_{2e}, the permittee must implement good operating practices (proper maintenance and operation) and shall not operate more than 100 hours per year of non-emergency use. Compliance with this requirement shall be demonstrated by compliance with the CO_{2e} emissions limitation in b)(1)a.
- d. This 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).
- e. This rule applies 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.
- f. The permittee must comply with the applicable emission and operating limitations of 40 CFR Part 60, Subpart IIII upon startup.

c) Operational Restrictions

- (1) The quality of diesel fuel burned in this emissions unit shall meet the following U.S. EPA's specifications for ULSD found in 40 CFR 80.510(b), on an 'as received' basis:
 - a. Sulfur content. 15 ppm maximum (0.0015% by weight).
 - b. Cetane index or aromatic content, as follows:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.
- (2) See 40 CFR Part 60, Subpart IIII (40 CFR 60.4200 – 4219).

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the following information each month:
 - a. the hours of non-emergency operation for this emissions unit; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the non-emergency operating hours for this emissions unit.
- (2) For each day during which the permittee burns a fuel other than USLD fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight), the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (3) The permittee shall maintain documents provided by the oil supplier for each shipment of No. 2 fuel oil to demonstrate compliance with the ULSD requirements. These documents must include the receipt or bill of lading that includes confirmation that the fuel meets the No. 2 diesel fuel ULSD standards.
- (4) See 40 CFR Part 60, Subpart IIII (40 CFR 60.4200 – 4219).

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 the following:
 - a. Any exceedences of the 100 hours per year limitation per emission unit on non-emergency operating hours; and
 - b. Any exceedences of the rolling, 12-month emissions limitations for NMHC+NO_x, CO, PE/PM₁₀/PM_{2.5}, SO₂, H₂SO₄ and CO_{2e}, calculated pursuant to the equations in f)(1) below.

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 deviation (excursion) reports that identify each day when a fuel other than ultra-low sulfur diesel fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (4) See 40 CFR Part 60, Subpart IIII (40 CFR 60.4200 – 4219).
- (5) See 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6580 – 6675).

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 Limitations:

NMHC+NO_x emissions shall not exceed 6.40 g/kW-hour, 23.21 pounds per hour and 1.16 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be based on the manufacturer's certification to the standards applicable to this emissions unit and by maintaining the engine according to the manufacturer's specifications. See f)(2) below.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

NMHC+NO_x (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1) X
NMHC+NO_x emissions limitation, in pounds per hour X 1 ton/2,000 pounds

b. Emissions Limitations:

CO emissions shall not exceed 3.5 g/kW-hour, 12.69 pounds per hour and 0.63 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be based on the manufacturer's certification to the standards applicable to this emissions unit and by maintaining the engine according to the manufacturer's specifications. See f)(2) below.



Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

CO (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1) X CO emissions limitation, in pounds per hour X 1 ton/2,000 pounds

c. Emissions Limitations:

PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 0.20 g/kW-hour, 0.73 pound per hour and 0.037 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be based on the manufacturer's certification to the standards applicable to this emissions unit and by maintaining the engine according to the manufacturer's specifications. See f)(2) below.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

PE/PM₁₀/PM_{2.5} (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1) X PE/PM₁₀/PM_{2.5} emissions limitation, in pound per hour X 1 ton/2,000 pounds

d. Emissions Limitations:

SO₂ emissions shall not exceed 0.0015 pound per million Btu, 0.022 pound per hour and 0.0011 ton per rolling, 12-month period.

Applicable Compliance Method:

The short-term emissions limitations were established based upon burning of ULSD fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight).

If required, SO₂ 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, including fuel sulfur sampling in lieu of stack sampling.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

SO₂ (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1) X SO₂ emissions limitation, in pound per hour X 1 ton/2,000 pounds

e. Emissions Limitations:

H₂SO₄ emissions shall not exceed 0.00023 pound per million Btu, 0.0034 pound per hour and 0.00017 ton per rolling, 12-month period.

Applicable Compliance Method:

The short-term emissions limitations were established based upon burning of ULSD fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight).

If required, H₂SO₄ emissions shall be determined according to test Methods 1 - 4, and 15 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, including fuel sulfur sampling in lieu of stack sampling.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

H₂SO₄ (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1) X H₂SO₄ emissions limitation, in pound per hour X 1 ton/2,000 pounds

f. Emissions Limitation:

CO₂e emissions shall not exceed 120.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

CO₂e (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1) X CO₂e emissions factor of 2,396 pounds per hour, calculated from the emissions factors from 40 CFR Part 98, Tables C-1 and C-2 and global warming potentials in 40 CFR Part 98, Table A-1 X 1 ton/2,000 pounds

g. Emissions Limitations:

Exhaust opacity from CI RICE must not exceed:

20 percent during the acceleration mode;
15 percent during the lugging mode; and
50 percent during the peaks in either the acceleration or lugging modes.

Applicable Compliance Method:

If required, visible PE shall be determined according to USEPA Method 9. See f)(2) below.

- (2) Pursuant to 40 CFR 60.4211(g)(3) and 89.113(b), if the permittee does not install, configure, operate and maintain this emissions unit according to the manufacturer's emission-related written instructions, or if the permittee changes emission-related settings in a way that is not permitted by the manufacturer, compliance must be demonstrated by conducting performance tests in accordance with the following requirements:
- a. An initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in b)(1)a. and g. for NO_x+NMHC, CO, PE/PM₁₀/PM_{2.5} and exhaust opacity within one year of startup, or within one year after the emissions unit is no longer installed, configured, operated and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way not permitted by the manufacturer. Thereafter, subsequent performance testing must be conducted every 8,760 hours of engine operation or three years, whichever comes first.
 - b. The test method(s) in 40 CFR 60.4212 shall be employed to demonstrate compliance with the allowable mass emission rates. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - c. 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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).
 - d. Personnel from the Ohio EPA, Southeast 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.
 - e. 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, Southeast 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, Southeast District Office.



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g) Miscellaneous Requirements

- (1) None.

4. P006, Emergency Fire Pump

Operations, Property and/or Equipment Description:

410 HP emergency diesel-fired fire pump to provide on-site firefighting capabilities independent of the utility grid

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) b)(1)c. and b)(2)e.

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 rules 3745-31-10 through 3745-31-20 and 3745-31-34	<p>Nonmethane hydrocarbons plus nitrogen oxides (NMHC+NO_x) emissions shall not exceed 4.0 g/kW-hour, 2.70 pounds per hour and 0.14 ton per rolling, 12-month period.</p> <p>Carbon monoxide (CO) emissions shall not exceed 3.5 g/kW-hour, 2.36 pounds per hour and 0.12 ton per rolling, 12-month period.</p> <p>Particulate emissions (PE), emissions of particulate matter less than 10 microns (PM₁₀) and emissions of particulate matter less than 2.5 microns (PM_{2.5}) shall not exceed 0.20 g/kW-hour, 0.13 pound per hour and 0.0065 ton per rolling, 12-month period.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.0015 pound per million Btu, 0.0053 pound per hour and 0.00027 ton per rolling, 12-month period.</p> <p>Hydrogen sulfide (H₂SO₄) emissions shall not exceed 0.00023 lb/MMBtu, 0.00081 pound per hour and 0.000041 ton per rolling, 12-month period.</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>Carbon dioxide equivalent (CO₂e) emissions shall not exceed 29.0 tons per rolling, 12-month period.</p> <p>See b)(2)a.-c. below.</p>
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	<p>The emissions limitations for NO_x, CO, volatile organic compound (VOC), PE/PM₁₀/PM_{2.5} and SO₂ required by this rule are equivalent to the emissions limitations for NO_x, CO, VOC, PE/PM₁₀/PM_{2.5} and SO₂ established pursuant to OAC rules 3745-31-10 through 3745-31-20.</p> <p>Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO₂e emissions from this air contaminant source pursuant to OAC rule 3745-31-34(E)(8).</p> <p>See b)(2)d. and c)(1) below.</p>
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	<p>BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, VOC, CO, PE/PM₁₀/PM_{2.5} and SO₂ emissions from this air contaminant source since the calculated annual emission rates are less than 10 tons/year taking into account the federally enforceable limits in OAC rules 3745-31-10 through 20 and 40 CFR Part 60, Subpart III.</p> <p>See b)(2)e. below.</p>
d.	OAC rule 3745-17-07(A)	Visible PE from any stack serving this emissions unit shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
e.	OAC rule 3745-17-11(B)	The emission limitation required by this rule is less stringent than the emissions limitation for PE established pursuant to OAC rules 3745-31-10 through 20.
f.	OAC rule 3745-18-06	Exempt pursuant to OAC rule 3745-18-06(B) since the rated heat input capacity is equal to, or less than, ten MMBtu/hour.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
g.	OAC rule 3745-110-03	Exempt pursuant to OAC rule 3745-110-03(K)(3) because this emissions unit is a stationary IC engine with an energy output capacity of less than two thousand horsepower.
h.	40 CFR 60, Subpart IIII (40 CFR 60.4200 – 4219) [In accordance with 40 CFR 60.4200(a)(2)(ii) and 60.4205(c), this emissions unit is a 410 HP certified fire pump compression ignition (CI) internal combustion engine (ICE) manufactured after July 1, 2006 with a displacement of less than 30 liters per cylinder subject to the emissions limitations/control measures specified in this section.]	The emissions limitations for NMHC+NO _x , CO, PE/PM ₁₀ /PM _{2.5} and SO ₂ required by this rule are equivalent to the emissions limitations for NMHC+NO _x , CO, PE/PM ₁₀ /PM _{2.5} and SO ₂ established pursuant to OAC rules 3745-31-10 through 3745-31-20. [40 CFR 60.4205(c) and Table 4 to 40 CFR Part 60, Subpart IIII, and 40 CFR 60.4207(b) and 40 CFR 80.510(b)] See b)(2)f. and c)(1) and (2) below.
i.	40 CFR 60.1 – 19 (40 CFR 60.4218)	Table 8 of Subpart IIII of 40 CFR Part 60 – Applicability of General Provisions to Subpart IIII, specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to this subpart.
j.	40 CFR 63, Subpart ZZZZ (40 CFR 63.6580 – 6675) [In accordance with 40 CFR 63.6585, 63.6590(a)(2)(ii) and 63.6590(c)(6), this emissions unit is an emergency stationary reciprocating internal combustion engine (RICE) with a site rating of less than 500 brake HP located at a major source of hazardous air pollutant (HAP) emissions for which construction commenced after June 12, 2006.]	New emergency stationary RICE with site rating of less than or equal to 500 HP located at a major source of HAP emissions must meet the requirements of this part by meeting the requirements of 40 CFR Part 60, Subpart IIII. No further requirements apply for such engines under this part. [40 CFR 63.6590(c)(6)]
k.	40 CFR 63.1 – 16 (40 CFR 63.6665)	Table 8 of Subpart ZZZZ of 40 CFR Part 63 – Applicability of General Provisions to Subpart ZZZZ, specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to this subpart.

(2) Additional Terms and Conditions

- a. As part of the Best Available Control Technology (BACT) determination for NMHC+NO_x, CO and PE/PM₁₀/PM_{2.5}, this emissions unit shall be certified to the meet the emissions standards in Table 4 of 40 CFR Part 60, Subpart IIII, shall employ good combustion practices per the manufacturer's operating manual, and shall not operate more than 100 hours per year of non-emergency use. Compliance with these requirements shall be demonstrated by compliance with the short-term NO_x, NMHC, CO and PE/PM₁₀/PM_{2.5} emission limitations in b)(1)a.
- b. As part of the BACT determination for SO₂ and H₂SO₄, the permittee shall burn only ultra-low sulfur diesel (ULSD) fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight) in this emissions unit. Compliance with this requirement shall be demonstrated by compliance with the SO₂ and H₂SO₄ emissions limitations in b)(1)a.
- c. As part of the BACT determination for CO_{2e}, the permittee must implement good operating practices (proper maintenance and operation) and shall not operate more than 100 hours per year of non-emergency use. Compliance with these requirements shall be demonstrated by compliance with the CO_{2e} emissions limitation in b)(1)a.
- d. This 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).
- e. This rule applies 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.
- f. The permittee must comply with the applicable emission and operating limitations of 40 CFR Part 60, Subpart IIII upon startup.

c) Operational Restrictions

- (1) The quality of diesel fuel burned in this emissions unit shall meet the following U.S. EPA's specifications for ULSD found in 40 CFR 80.510(b), on an 'as received' basis:
 - a. Sulfur content: 15 ppm maximum (0.0015% by weight).
 - b. Cetane index or aromatic content:
 - i. A minimum cetane index of 40; or
 - ii. A maximum aromatic content of 35 volume percent.
- (2) See 40 CFR Part 60, Subpart IIII (40 CFR 60.4200 – 4219).

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain records of the following information each month:
 - a. the hours of non-emergency operation for this emissions unit; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the non-emergency operating hours for this emissions unit.
- (2) For each day during which the permittee burns a fuel other than USLD fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight), the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- (3) The permittee shall maintain documents provided by the oil supplier for each shipment of No. 2 fuel oil to demonstrate compliance with the ULSD requirements. These documents must include the receipt or bill of lading that includes confirmation that the fuel meets the No. 2 diesel fuel ULSD standards.
- (4) See 40 CFR Part 60, Subpart IIII (40 CFR 60.4200 – 4219).

e) Reporting Requirements

- (1) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. Any exceedences of the 100 hours per year limitation per emission unit on non-emergency operating hours; and
 - b. Any exceedences of the rolling, 12-month emissions limitations for NMHC+NO_x, CO, PE/PM₁₀/PM_{2.5}, SO₂, H₂SO₄ and CO_{2e}, calculated pursuant to the equations in f)(1) below.

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

- (2) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than ultra-low sulfur diesel fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight) was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (3) See 40 CFR Part 60, Subpart IIII (40 CFR 60.4200 – 4219).

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 Limitations:

NMHC+NO_x emissions shall not exceed 4.0 g/kW-hour, 2.70 pounds per hour and 0.14 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be based on the manufacturer's certification to the standards applicable to this emissions unit and by maintaining the engine according to the manufacturer's specifications. See f)(2) below.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

NMHC+NO_x (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1)(b) X NMHC+NO_x emissions limitation, in pounds per hour X 1 ton/2,000 pounds

b. Emissions Limitations:

CO emissions shall not exceed shall not exceed 3.5 g/kW-hour (2.6 g/HP-hour), 2.36 pounds per hour and 0.12 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be based on the manufacturer's certification to the standards applicable to this emissions unit and by maintaining the engine according to the manufacturer's specifications. See f)(2) below.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

CO (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1)(b) X CO emissions limitation, in pounds per hour X 1 ton/2,000 pounds

c. Emissions Limitations:

PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 0.20 g/kW-hour, 0.13 pound per hour and 0.0065 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be based on the manufacturer's certification to the standards applicable to this emissions unit and by maintaining the engine according to the manufacturer's specifications. See f)(2) below.



Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

$PE/PM_{10}/PM_{2.5}$ (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1)(b) X
 $PE/PM_{10}/PM_{2.5}$ emissions limitation, in pounds per hour X 1 ton/2,000 pounds

d. Emissions Limitations:

SO₂ emissions shall not exceed 0.0015 pound per million Btu, 0.0053 pound per hour and 0.00027 ton per rolling, 12-month period.

Applicable Compliance Method:

The short-term emissions limitations were established based upon burning of ULSD fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight).

If required, SO₂ 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, including fuel sulfur sampling in lieu of stack sampling.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

SO₂ (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1)(b) X SO₂
emissions limitation, in pound per hour X 1 ton/2,000 pounds

e. Emissions Limitations:

H₂SO₄ emissions shall not exceed 0.00023 pound per million Btu, 0.0034 pound per hour and 0.000041 ton per rolling, 12-month period.

Applicable Compliance Method:

The short-term emissions limitations were established based upon burning of ULSD fuel with a sulfur content of less than 15 ppm (0.0015 percent by weight).

If required, H₂SO₄ emissions shall be determined according to test Methods 1 - 4, and 15 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, including fuel sulfur sampling in lieu of stack sampling.

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

H_2SO_4 (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1)(b) X H_2SO_4
emissions limitation, in pound per hour X 1 ton/2,000 pounds

f. Emissions Limitation:

CO₂e emissions shall not exceed 29.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emissions limitation shall be demonstrated based on the following calculation:

CO₂e (tons per rolling, 12-month period) =

hours of operation per rolling, 12-month period, as recorded in d)(1)(b) X CO₂e
emissions factor of 577 pounds per hour, calculated from the emissions factors
from 40 CFR Part 98, Tables C-1 and C-2 and global warming potentials in 40
CFR Part 98, Table A-1 X 1 ton/2,000 pounds

g. Emissions Limitation:

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

Applicable Compliance Method:

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

(2) Pursuant to 40 CFR 60.4211(g)(2), if the permittee does not install, configure, operate and maintain this emissions unit according to the manufacturer's emission-related written instructions, or if the permittee changes emission-related settings in a way that is not permitted by the manufacturer, compliance must be demonstrated by conducting the initial performance test in accordance with the following requirements:

- a. An initial performance test shall be performed to demonstrate compliance with the mass emissions limitations in b)(1)a. and g. for NMHC+NO_x, CO and PE/PM₁₀/PM_{2.5}, within one year of startup, or within one year after the emissions unit is no longer installed, configured, operated and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the permittee changes emission-related settings in a way not permitted by the manufacturer.
- b. The test method(s) in 60.4212 shall be employed to demonstrate compliance with the allowable mass emission rates. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- c. 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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).

- d. Personnel from the Ohio EPA, Southeast 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.
- e. 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, Southeast 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, Southeast District Office.

g) Miscellaneous Requirements

- (1) None.

5. Emissions Unit Group - Fuel Gas Heaters: P007 and P008

EU ID	Operations, Property and/or Equipment Description
P007	Fuel Gas Heater #1; 15.0 MMBtu/hr natural gas-fired fuel gas heater with low-NO _x burners
P008	Fuel Gas Heater #2; 15.0 MMBtu/hr natural-gas fired fuel gas heater with low-NO _x burners

- 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) b)(1)c. and b)(2)h.
- 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 rules 3745-31-10 through 20 and 3745-31-34	<p>Nitrogen oxides (NO_x) emissions shall not exceed 0.020 lb/MMBtu of actual heat input, 0.30 pound per hour and 1.31 tons per rolling, 12-month period.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.055 lb/MMBtu of actual heat input, 0.83 pound per hour and 3.64 tons per rolling, 12-month period.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.0050 lb/MMBtu of actual heat input, 0.075 pound per hour and 0.33 ton per rolling, 12-month period.</p> <p>Particulate emissions (PE) and emissions of particulate matter less than 10 microns (PM₁₀) and particulate matter less than 2.5 microns (PM_{2.5}) shall not exceed 0.0050 lb/MMBtu of actual heat input, 0.075 pound per hour and 0.33 ton per rolling, 12-month period.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.0015 lb/MMBtu, 0.023 pound per hour and 0.10 ton per rolling, 12-</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>month period.</p> <p>Hydrogen sulfide (H₂SO₄) emissions shall not exceed 0.00023 lb/MMBtu, 0.0035 pound per hour and 0.015 ton per rolling, 12-month period.</p> <p>Carbon dioxide equivalent (CO₂e) emissions shall not exceed 7,695.0 tons per rolling, 12-month period.</p> <p>Visible PE from the stack serving this emissions unit shall not exceed 10% opacity as a 6-minute average.</p> <p>See b)(2)a.-f. below.</p>
b.	OAC rule 3745-31-05(A)(3), as effective 6/30/08	<p>The emissions limitations for NO_x, CO, VOC, PE/PM₁₀/PM_{2.5} and SO₂ required by this rule are equivalent to the emissions limitations for NO_x, VOC, PE/PM₁₀/PM_{2.5} and SO₂ established pursuant to OAC rules 3745-31-10 through 3745-31-20.</p> <p>Best Available Technology (BAT) requirements under OAC rule 3745-31-05(A)(3) do not apply to the CO₂e emissions from this air contaminant source pursuant to OAC rule 3745-31-34(E)(8).</p> <p>See b)(2)g. and c)(1) below.</p>
c.	OAC rule 3745-31-05(A)(3)(a)(ii), as effective 6/30/08	<p>BAT requirements under OAC rule 3745-31-05(A)(3) do not apply to the NO_x, CO, PE/PM₁₀/PM_{2.5} and SO₂ emissions from this air contaminant source since the potential to emit is less than 10 tons/year.</p> <p>See b)(2)h. below.</p>
d.	OAC rule 3745-17-07(A) and OAC rule 3745-17-11(B)	<p>The emissions limitations required by this rule are less stringent than the emission limitation required pursuant to OAC rules 3745-31-10 through 3745-31-20.</p>
e.	OAC rule 3745-18-06	<p>Exempt pursuant to OAC rule 3745-18-06(A) since only natural gas fuel is burned in this emissions unit.</p>
f.	OAC rule 3745-110-03	<p>Exempt pursuant to OAC rule 3745-110-03(K)(16) because this emissions unit</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		has the potential to emit 25 tons or less of NO _x emissions.
g.	<p>40 CFR Part 60, Subparts A and Dc (40 CFR 60.1-19 and 60.40c-60.48c)</p> <p>[In accordance with 40 CFR 60.40c(a), this emissions unit is a fuel gas heater that meets the definition of a steam generating unit for which construction, modification or reconstruction commenced after June 9, 1989 and has a maximum design heat input capacity of 29 megawatts (100 MMBtu/hr) or less, but greater than or equal to 12.9 MW (10 MMBtu/hr) subject to the emissions limitations and control measures specified in this section.]</p>	See d)(4) and e)(4) below.
h.	<p>40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575)</p> <p>[In accordance with 40 CFR 63.7480, 63.7485, 63.7490(a)(2) and (b) and 63.7499(l), this emissions unit is a new industrial process heater located at a major source of HAP emissions in the units designed to burn gas 1 fuels subject to the emissions limitations and control measures specified in this section.]</p>	<p>The permittee shall comply with the work practice standards in 40 CFR Part 63, Subpart DDDDD Table 3. [40 CFR 63.7500(a)(1) and Table 3 (1 or 3)]</p> <p>See b)(2)i. and c)(3) below.</p> <p>The permittee shall comply with the requirements of 40 CFR Part 63, Subpart DDDDD upon startup. [40 CFR 63.7495(a)]</p>
i.	40 CFR Part 63, Subpart A (40 CFR 63.1-16)	Table 10 of 40 CFR Part 63, Subpart DDDDD specifies the provisions of Subpart A that apply to owners and operators of affected facilities subject to this subpart. [40 CFR 63.7565]

(2) Additional Terms and Conditions

- a. As part of the Best Available Control Technology (BACT) determination for NO_x, each fuel gas heater must be equipped with low-NO_x burners. Compliance with these requirements shall be demonstrated by compliance with the short-term NO_x emission limitations in b)(1)a.

- b. As part of the BACT determination for CO, compliance with the BACT requirements shall be demonstrated by compliance with the short-term CO emission limitations in b)(1)a.
 - c. As part of the BACT determination for VOC, compliance with the BACT requirements shall be demonstrated by compliance with the short-term VOC emission limitation in b)(1)a.
 - d. As part of the BACT determination for PE, PM₁₀ and PM_{2.5}, compliance with the BACT requirements shall be demonstrated by compliance with the VE and short-term PE, PM₁₀ and PM_{2.5} emissions in b)(1)a.
 - e. As part of the BACT determination for SO₂ and H₂SO₄, the permittee shall burn only natural gas with a sulfur content of less than 0.50 grain/100 scf in this emissions unit. Compliance with this requirement shall be demonstrated by compliance with the SO₂ and H₂SO₄ emissions limitations in b)(1)a.
 - f. As part of the BACT determination for CO_{2e}, compliance with the BACT requirements shall be demonstrated by compliance with the CO_{2e} emissions limitation in b)(1)a.
 - g. This 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).
 - h. 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.
 - i. See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575)
- c) Operational Restrictions
- (1) The permittee shall burn only natural gas fuel with a maximum sulfur content not to exceed 0.50 grain/100 scf in this emissions unit.
 - (2) See 40 CFR Part 60, Subpart Dc (40 CFR 60.40c–60.48c).
 - (3) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575).
- d) Monitoring and/or Recordkeeping Requirements
- (1) For each day during which the permittee burns a fuel other than natural gas fuel with a maximum sulfur content of 0.50 grain/100 scf, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (2) In order to accurately determine the heat input rates for this emissions unit, the permittee shall install, operate, and maintain equipment to continuously monitor and record the actual natural gas fuel flow rate to this emissions unit.

- (3) The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in this emissions unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D. Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the fuel's sulfur content is required annually and whenever the fuel supply sources change, and sampling and analysis of the fuels gross calorific value shall be sampled monthly.
- (4) The permittee shall maintain monthly records of the following information:
- a. the amount of natural gas consumed in this emissions unit, in MMscf;
 - b. the heat content of the natural gas combusted in this emissions unit, in MMBtu/MMscf;
 - c. the sulfur content of the natural gas combusted in this emissions unit, in grains/100 scf;
 - d. the total NO_x emissions from this emissions unit, in pounds, calculated by multiplying the NO_x emissions factor of 0.020 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.; the rolling, 12-month summation of the NO_x emissions from this emissions unit, in tons, calculated by adding the total NO_x emissions for the present month as recorded in d)(4)d., plus the total NO_x emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - e. the total CO emissions from this emissions unit, in pounds, calculated by multiplying the CO emissions factor of 0.055 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.;
 - f. The rolling, 12-month summation of the CO emissions from this emissions unit, in tons, calculated by adding the total CO emissions for the present month as recorded in d)(4)f., plus the total CO emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - g. the total VOC emissions from this emissions unit, in pounds, calculated by multiplying the VOC emissions factor of 0.0050 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.;
 - h. The rolling, 12-month summation of the VOC emissions from this emissions unit, in tons, calculated by adding the total VOC emissions for the present month as recorded in d)(4)h., plus the total VOC emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;

- i. the total PE/PM₁₀/PM_{2.5} emissions from this emissions unit, in pounds, calculated by multiplying the PE/PM₁₀/PM_{2.5} emissions factor of 0.0050 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.;
 - j. The rolling, 12-month summation of the PE/PM₁₀/PM_{2.5} emissions from this emissions unit, in tons, calculated by adding the total PE/PM₁₀/PM_{2.5} emissions for the present month as recorded in d)(4)j., plus the total PE/PM₁₀/PM_{2.5} emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - k. the total SO₂ emissions from this emissions unit, in pounds, calculated by multiplying the SO₂ emissions factor of 0.0015 lb/MMBtu, or after testing has been completed, the results of the most recent performance test, by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.;
 - l. The rolling, 12-month summation of the SO₂ emissions from this emissions unit, in tons, calculated by adding the total SO₂ emissions for the present month as recorded in d)(4)l., plus the total SO₂ emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - m. the total H₂SO₄ emissions from this emissions unit, in pounds, calculated by multiplying the H₂SO₄ emissions factor of 0.00023 lb/MMBtu, or after testing has been completed, the results of the most recent stack test, by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.;
 - n. The rolling, 12-month summation of the H₂SO₄ emissions from this emissions unit, in tons, calculated by adding the total H₂SO₄ emissions for the present month as recorded in d)(4)n., plus the total H₂SO₄ emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds;
 - o. the total CO₂e emissions from this emissions unit, in pounds, calculated by multiplying the CO₂e emissions factor of 117.13 lbs/MMBtu by the amount of natural gas consumed, as recorded in d)(4)a. and the heat content of the natural gas consumed, as recorded in d)(4)b.; and
 - p. The rolling, 12-month summation of the CO₂e emissions from this emissions unit, in tons, calculated by adding the total CO₂e emissions for the present month as recorded in d)(4)p., plus the total CO₂e emissions for the previous 11 months, and dividing by 1 ton/2,000 pounds.
- (5) See 40 CFR Part 60, Subpart Dc (40 CFR 60.40c–60.48c).
- (6) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575).

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 with a maximum sulfur content of 0.50 grain/100 scf was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedences of the rolling, 12-month emissions limitations for NO_x, CO, VOC, PE/PM₁₀/PM_{2.5}, SO₂, H₂SO₄ and CO₂e.
- (4) See 40 CFR Part 60, Subpart Dc (40 CFR 60.40c–60.48c).
- (5) See 40 CFR Part 63, Subpart DDDDD (40 CFR 63.7480-7575).

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 Limitations:

NO_x emissions shall not exceed 0.020 lb/MMBtu of actual heat input, 0.30 pound per hour and 1.31 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(2).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

b. Emissions Limitations:

CO emissions shall not exceed 0.055 lb/MMBtu of actual heat input, 0.83 pound per hour and 3.64 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(2).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

c. Emissions Limitations:

VOC emissions shall not exceed 0.0050 lb/MMBtu of actual heat input, 0.075 pound per hour and 0.33 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(2).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

d. Emissions Limitations:

PE and emissions of PM₁₀ and PM_{2.5} shall not exceed 0.0050 lb/MMBtu of actual heat input, 0.075 pound per hour and 0.33 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(2).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

e. Emissions Limitations:

SO₂ emissions shall not exceed 0.0015 lb/MMBtu, 0.023 pound per hour and 0.10 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(2).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

f. Emissions Limitations:

H₂SO₄ emissions shall not exceed 0.00023 lb/MMBtu, 0.0035 pound per hour and 0.015 ton per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the short-term emissions limitations shall be demonstrated based on the testing requirements in f)(2).

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

g. Emissions Limitation:

CO₂e emissions shall not exceed 7,695.0 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emissions limitation shall be demonstrated by the recordkeeping in d)(3).

h. Emissions Limitations:

Visible PE from the stack shall not exceed twenty percent opacity, as a six-minute average, except as provided by the rule.

Applicable Compliance Method:

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

(2) Performance testing shall be conducted as required in OAC rules 3745-31-10 through 20. The permittee shall conduct, or have conducted, emission testing for this emissions unit 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, as applicable, in accordance with the following requirements:

a. The emission testing shall be conducted to demonstrate compliance with the emissions limitations specified in b)(1) for NO_x, CO, VOC, PE/PM₁₀/PM_{2.5}, SO₂ and H₂SO₄.

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

for NO_x, Methods 1-4 and 7 of 40 CFR Part 60 Appendix A;

for CO, Methods 1-4 and 10 of 40 CFR Part 60 Appendix A;

for VOC, Methods 1-4 and 18 and 25 of 40 CFR Part 60 Appendix A;

for PE/PM₁₀/PM_{2.5}, Methods 1-5 of 40 CFR Part 60 Appendix A and Method 202 of 40 CFR Part 51 Appendix M;

for SO₂, 40 CFR 60.4415(a) for fuel sulfur content; and

for H₂SO₄, Methods 1-4 and 8 of 40 CFR Part 60 Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. The test(s) for each pollutant shall be conducted while the emissions unit is operating at or near its maximum capacity, while burning representative fuel and/or combination of fuels, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

- 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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).
 - e. Personnel from the Ohio EPA, Southeast 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, Southeast 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, Southeast District Office.
- g) **Miscellaneous Requirements**
- (1) None.