



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

09/21/04

CERTIFIED MAIL

08-19-07-0237
DPL Energy Greenville Electric Generating Station
Drew Parker
1065 Woodman Drive
Dayton, OH 45432-1423

**RE: Final Title V Chapter 3745-77 permit
TVP001**

Dear Drew Parker:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

If you have any questions, please contact RAPCA.

Sincerely,

Michael W. Ahern
Permit Issuance and Data Management Section
Division of Air Pollution Control

cc: RAPCA
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: 09/21/04

Effective Date: 10/12/04

Expiration Date: 10/12/09

This document constitutes issuance of a Title V permit for Facility ID: 08-19-07-0237 to:
DPL Energy Greenville Electric Generating Station
5119 Sebring Warner Road
Greenville, OH 45331-8786

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

Table with 3 columns: Emissions Unit ID (Company ID), Emissions Unit Activity Description, and Emissions Unit Activity Description. Rows include units B001 through B008, each with a detailed description of the generator and turbine configuration and backup capacity.

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

RAPCA
117 South Main Street
Dayton, OH 45422-1280
(937) 225-4435

OHIO ENVIRONMENTAL PROTECTION AGENCY

Handwritten signature of Christopher Jones

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. *State and Federally Enforceable Section*

1. **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, i.e., in Section A.III of Part III of this Title V permit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

- i. The date, place (as defined in the permit), and time of sampling or measurements.
- ii. The date(s) analyses were performed.
- iii. The company or entity that performed the analyses.
- iv. The analytical techniques or methods used.
- v. The results of such analyses.
- vi. The operating conditions existing at the time of sampling or measurement.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

- i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be

submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

- iv. 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))
- v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

4. 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.

(Authority for term: OAC rule 3745-77-07(A)(5))

5. Severability Clause

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

6. General Requirements

- a. The permittee must comply with all terms and conditions of this permit. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, revoked, or revoked and reissued, for cause, in accordance with A.10 below. 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, reopening 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.

(Authority for term: OAC rule 3745-77-07(A)(7))

7. 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.

(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that 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, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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:
 - i. 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.
 - ii. 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 paragraph (E) of OAC rule 3745-77-03.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. 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 appropriate Ohio EPA District Office or local air agency 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:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
 - i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local

air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).
(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA. Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

18. Insignificant Activities

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. 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.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an “emissions unit” as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.

B. State Only Enforceable Section

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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, i.e., 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.)

2. Records Retention Requirements

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.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. 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 of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of 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 emissions unit(s) that is (are) served by such control system(s).

5. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

6. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;
- b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. 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.

2. The following insignificant emissions units are located at this facility:

Z001 - fire pump;

F001 - unpaved roadways (PTI 08-04080); and

T001 - 400,000-gallon No. 2 fuel oil internal floating roof tank (PTI 08-04080).

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, and well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

B. State Only Enforceable Section

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G1CT1 - Generator No. 1/Turbine No. 1 (B001)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT1 - Generator No. 1, Turbine No. 1	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

Facility Name: **DPL Energy Greenville Electric Generating Station**

Facility ID: **08-19-07-0237**

Emissions Unit: **G1CT1 - Generator No. 1/Turbine No. 1 (B001)**

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		<p>When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.</p> <p>When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.</p> <p>Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>See A.I.2.h below.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See Sections A.I.2.a through A.I.2.g below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).</p> <p>NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.</p> <p>See Section A.I.2.g below.</p>
	OAC rule 3745-31-05(C) PTI 08-04080	
	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

o. The date, time, and duration of each start-up and shutdown period.

p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.

2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up or shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO2 emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO2 emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO2/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO2 emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO2 per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G1CT2 - Generator No. 1/Turbine No. 2 (B002)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT2 - Generator No. 1, Turbine No. 2	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

OAC rule 3745-31-05(C)
PTI 08-04080

OAC rule 3745-17-11(B)(4)

OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

See A.I.2.h below.

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

See Sections A.I.2.a through A.I.2.g below.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

See Section A.I.2.g below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

- j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - o. The date, time, and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up or shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO2 emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO2 emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO2/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO2 emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO2 per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G2CT1 - Generator No. 2/Turbine No. 1 (B003)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT1 - Generator No. 2, Turbine No. 1	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		<p>When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.</p> <p>When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.</p> <p>Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>See A.I.2.h below.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See Sections A.I.2.a through A.I.2.g below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).</p> <p>NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.</p> <p>See Section A.I.2.g below.</p>
	OAC rule 3745-31-05(C) PTI 08-04080	
	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

o. The date, time, and duration of each start-up and shutdown period.

p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.

2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up or shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO2 emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO2 emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO2/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO2 emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO2 per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G2CT2 - Generator No. 2/Turbine No. 2 (B004)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT2 - Generator No. 2, Turbine No. 2	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		<p>When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.</p> <p>When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.</p> <p>Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>See A.I.2.h below.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See Sections A.I.2.a through A.I.2.g below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).</p> <p>NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.</p> <p>See Section A.I.2.g below.</p>
	OAC rule 3745-31-05(C) PTI 08-04080	
	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

- j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - o. The date, time, and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up and shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO2 emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO2 emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO2/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO2 emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO2 per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G3CT1 - Generator No. 3/Turbine No. 1 (B005)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT1 - Generator No. 3, Turbine No. 1	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

See A.I.2.h below.

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

See Sections A.I.2.a through A.I.2.g below.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

OAC rule 3745-31-05(C)
PTI 08-04080

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

OAC rule 3745-17-11(B)(4)

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

See Section A.I.2.g below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

- j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - o. The date, time, and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up and shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NO_x emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NO_x continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO₂ emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO₂/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO₂ emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emissions testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G3CT2 - Generator No. 3/Turbine No. 2 (B006)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT2 - Generator No. 3, Turbine No. 2	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		<p>When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.</p> <p>When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.</p> <p>Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>See A.I.2.h below.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See Sections A.I.2.a through A.I.2.g below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).</p> <p>NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.</p> <p>See Section A.I.2.g below.</p>
	OAC rule 3745-31-05(C) PTI 08-04080	
	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

- j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - o. The date, time, and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up or shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO2 emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO2 emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO2/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO2 emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO2 per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G4CT1 - Generator No. 4/Turbine No. 1 (B007)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT1 - Generator No. 4, Turbine No. 1	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Facility Name: **DPL Energy Greenville Electric Generating Station**

Facility ID: **08-19-07-0237**

Emissions Unit: **G4CT1 - Generator No. 4/Turbine No. 1 (B007)**

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

See A.I.2.h below.

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

See Sections A.I.2.a through A.I.2.g below.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

OAC rule 3745-31-05(C)
PTI 08-04080

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

OAC rule 3745-17-11(B)(4)

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

See Section A.I.2.g below.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

- j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - o. The date, time, and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up or shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO₂ emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO₂/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO₂ emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NO_x emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO_x emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NO_x emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO_x emissions shall not exceed 46.7 lbs/hour.

NO_x emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NO_x emission and concentration limitations shall be based upon the unbiased data from the NO_x continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NO_x emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: G4CT2 - Generator No. 4/Turbine No. 2 (B008)

Activity Description: Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT2 - Generator No. 4, Turbine No. 2	OAC rule 3745-31-05(A)(3) PTI 08-04080	<p>When burning natural gas, nitrogen oxides (NOx) emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.</p> <p>NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.</p> <p>When burning natural gas, carbon monoxide (CO) emissions shall not exceed 73.5 lbs/hour.</p> <p>When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.</p>

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

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

When burning natural gas, sulfur dioxide (SO₂) emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

See Section A.II.2 below.

When burning natural gas, volatile organic compound (VOC*) emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC* emissions shall not exceed 2.7 lbs/hour.

* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.

When burning natural gas, organic compound (OC) emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		<p>When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.</p> <p>When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.</p> <p>Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>See A.I.2.h below.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See Sections A.I.2.a through A.I.2.g below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).</p> <p>NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.</p> <p>Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.</p> <p>See Section A.I.2.g below.</p>
	OAC rule 3745-31-05(C) PTI 08-04080	
	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	40 CFR Part 75	See Sections A.III.2 and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

2. Additional Terms and Conditions

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements specified in 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of the requirements specified in 40 CFR Part 60.334(b) (Subpart GG) to monitor the nitrogen content of the natural gas being burned in the turbine, the permittee shall operate and maintain a NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the exhaust stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use a certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specifications 6 shall apply to the NOx and CO continuous emissions monitoring systems.
- 2.e** In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 08-04080.

2. Additional Terms and Conditions (continued)

- 2.h** The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.

II. Operational Restrictions

1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, shall not exceed 8,863* while burning natural gas and 694* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.
2. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
3. The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.
4. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil.
 - d. The rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in hours, when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
 - e. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - f. The summation of the particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - g. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.
 - h. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
 - i. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

j. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

k. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

l. The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

m. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons.

n. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.

o. The date, time, and duration of each start-up and shutdown period.

p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, in mmBtu/month, when burning number two fuel oil.

2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).) A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.

b. Alternative 2:

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lbs/mmBtu). (The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).)

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions 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 documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, in lieu of the cylinder gas audits required pursuant to 40 CFR Part 60, linearity checks may be conducted for the carbon monoxide monitoring system in a manner consistent with the requirements for the linearity checks being conducted for the nitrogen oxides monitoring system. The linearity checks may be conducted at the frequencies specified in 40 CFR Part 75, Appendix B.

5. For each day during which the permittee burns a fuel other than pipeline natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
6. 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 appropriate missing data procedures specified in 40 CFR Part 75.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
 - a. The rolling, 12-month NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - b. The rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
 - c. The start-up and shutdown time period restriction.

* The rolling, 12-month emission summations for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.1.c.ii of this permit.

3. The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO₂ emissions rate, in lb/mmBtu.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NO_x emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration, and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline natural gas or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
7. The permittee shall submit annual reports that specify the total particulate, NO_x^{*}, and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for these pollutants shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I. of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation -

NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a NOx continuous emissions monitoring system as specified in Section A.III.3.

1.b Emission Limitation -

CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through the use of a CO continuous emissions monitoring system as specified in Section A.III.4.

1.c Emission Limitation -

SO₂ emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO₂/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.

ii. The monthly SO₂ emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO₂ per lb of sulfur divided by the average heat content of the fuel burned during the period by the combined actual heat input while burning number two fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

V. Testing Requirements (continued)

1.d Emission Limitation -

VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon the records required in Section A.III.1 and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

ii. The VOC emissions from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

1.e Emission Limitation -

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method -

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in Section A.III.2.

1.f Emission Limitation -

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method -

Compliance may be demonstrated by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.g Emission Limitations -

When burning natural gas, NOx emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NOx emissions shall not exceed 29.9 lbs/hour.

When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NOx emissions shall not exceed 46.7 lbs/hour.

NOx emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations shall be based upon the unbiased data from the NOx continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

Compliance with the annual NOx emission limitation shall be based upon the records required in Section A.III.1.

If required, the permittee shall demonstrate compliance with the NOx concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.h Emission Limitations -

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method -

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system and the records required in Section A.III. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

V. Testing Requirements (continued)

1.i Emission Limitation -

SO₂ emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in Section A.III.2 and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method (such as, ASTM method D3031), or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (10/96).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.j Emission Limitations -

When burning natural gas, SO₂ emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO₂ emissions shall not exceed 14.7 lbs/hour.

Applicable Compliance Method -

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in Section A.III.2 and shall be determined by multiplying the sulfur dioxide emissions in lb of SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.k Emission Limitations -

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method -

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in Section A.V.2..

V. Testing Requirements (continued)

1.l Emission Limitations -

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method -

Compliance may be based upon the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.m Emission Limitation -

OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.n Emission Limitations -

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method -

Compliance may be demonstrated by manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

1.o Emission Limitation -

Particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

Applicable Compliance Method -

Compliance shall be based upon records required in Section A.III.1.

1.p Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.

Applicable Compliance Method -

Compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

V. Testing Requirements (continued)

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days of initiating fuel oil combustion for this emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC** and particulate emission limitations.
 - c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
 - d. The tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

** The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in Section A.I.1, it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

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 Regional Air Pollution Control Agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Regional Air Pollution Control Agency.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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