



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

08/18/03

**CERTIFIED MAIL**

**RE: Draft Title V Chapter 3745-77 permit**

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

Dear Drew Parker:

You are hereby notified that the Ohio Environmental Protection Agency has prepared the enclosed draft of the Title V permit for the facility referenced above. The purpose of this draft is to solicit public comments. A public notice concerning the draft will appear in the Ohio EPA Weekly Review and the major newspaper in the county where the facility is located. Comments and/or a request for a public hearing from the public and any affected parties will be accepted by RAPCA within 30 days of the date of publication in the newspaper. You will be notified in writing if a public hearing is scheduled. **In order to facilitate our review of all the comments or concerns you may have with the enclosed draft permit, please provide a hand marked-up copy of the draft permit showing the changes you think are necessary, along with any additional summary comments, by the end of the draft public comment period. The hard marked-up copy and any additional summary comments should be submitted to the Ohio EPA District Office or local air agency identified below and to this office at the following address:**

**Ohio EPA, Division of Air Pollution Control  
Permit Issuance and Data Management Section  
Draft Title V Permit Correspondence  
122 South Front Street  
Columbus, Ohio 43215**

A decision on processing the Title V permit will be made after consideration of written public comments and oral testimony (if a public hearing is conducted). After the comment period, you will be provided with a Preliminary Proposed Title V permit and an opportunity to comment prior to the Proposed Title V permit submittal to USEPA.

If you have any questions concerning this draft Title V permit, please contact RAPCA.

Sincerely,

  
Michael W. Ahern, Supervisor  
Field Operations and Permit Section  
Division of Air Pollution Control

cc: USEPA (electronically submitted)  
File, DAPC PMU  
RAPCA  
Indiana



State of Ohio Environmental Protection Agency

**DRAFT TITLE V PERMIT**

<b>Issue Date:</b> 08/18/03	<b>Effective Date:</b> To be entered upon final issuance	<b>Expiration Date:</b> To be entered upon final issuance
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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**

B001 (G1CT1 - Generator No. 1/Turbine No. 1) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity	B004 (G2CT2 - Generator No. 2/Turbine No. 2) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity	B007 (G4CT1 - Generator No. 4/Turbine No. 1) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity
B002 (G1CT2 - Generator No. 1/Turbine No. 2) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity	B005 (G3CT1 - Generator No. 3/Turbine No. 1) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity	B008 (G4CT2 - Generator No. 4/Turbine No. 2) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity
B003 (G2CT1 - Generator No. 2/Turbine No. 1) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal capacity	B006 (G3CT2 - Generator No. 3/Turbine No. 2) Natural gas-fired combustion turbine w/ No. 2 oil backup; 269.71 MMBtu/hr (25MW) nominal 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. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

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**

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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, 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. 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))*
  - ii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) with respect to emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**
    - (a) Written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations ; (ii) the probable cause of such deviations; and (iii) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Part III of this Title V permit, the written 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. 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. These written reports shall satisfy the

requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the submission of monitoring reports every six months and the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations. See B.6 below if no deviations occurred during the quarter.

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

- (b) 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 deviation reporting requirements for this Title V permit, written reports that identify each malfunction that occurred during each calendar quarter shall be submitted, at a minimum, quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year, and shall cover the previous calendar quarters.

In identifying each deviation caused by a malfunction, the permittee shall specify the applicable requirement 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. Also, if a deviation caused by a malfunction is identified in a written report submitted pursuant to paragraph (a) above, a separate report is not required for that malfunction pursuant to this paragraph. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing, at a minimum, on a quarterly basis.

Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation, operational restriction, and control device operating parameter limitation shall be reported in the same manner as described above for malfunctions. These written reports for malfunctions (and scheduled maintenance projects, if appropriate) shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c)(iii) pertaining to the prompt reporting of all deviations.

*(Authority for term: OAC rules 3745-77-07(A)(3)(c)(iii))*

iii. **For monitoring, record keeping, and reporting requirements:**

Written reports that identify any deviations from the federally enforceable monitoring, record keeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year, for the previous six calendar months. 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. These semi-annual written reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c)(i) and (ii) pertaining to the reporting of any deviations related to the monitoring, record

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

*(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))*

## **2. 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 unit(s) 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 OAC rule 3745-15-06, 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).

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

## **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, except that no such notice shall be required for changes that qualify as insignificant emission levels or activities as defined in OAC rule 3745-77-01(U). 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.

(For purposes of clarification, the permittee can refer to Engineering Guide #63 that is available in the STARSHIP software package.)

*(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))*

**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 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.

## **Part II - Specific Facility Terms and Conditions**

### **A. State and Federally Enforcable Section**

1. The permittee may be subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Combustion Turbines, 40 CFR Part 63, Subpart YYYY. U.S. EPA failed to promulgate this standard by May 15, 2002, the Maximum Achievable Control Technology (MACT) hammer date. In accordance with 40 CFR Part 63, Subpart B (40 CFR Parts 63.50 through 63.56), the permittee shall submit an application to revise the permit to include equivalent emission limitations as a result of a case-by-case MACT determination. The application shall be submitted in two parts. The deadline to submit the Part I application, as specified in 40 CFR Part 63.53, was May 15, 2002.
2. If the final NESHAP standard is not promulgated by the deadline specified by U.S. EPA, the permittee shall submit the Part II application as specified in 40 CFR Part 63.53. The Part II application shall be submitted within 60 days after the deadline to promulgate the respective standard or by May 15, 2003, whichever is later. It must contain the following information, unless otherwise specified by future U.S. EPA regulations:
  - a. for a new affected source, the anticipated date of startup of operation;
  - b. the hazardous air pollutants (HAPs) emitted by each affected source in the relevant source category and an estimated total uncontrolled and controlled emission rate for HAPs from the affected source;
  - c. any existing federal, State, or local limitations or requirements applicable to the affected source;
  - d. for each affected emission point or group of affected emission points, an identification of control technology in place;
  - e. information relevant to establishing the MACT floor (or MACT emission limitation), and, at the option of the permittee, a recommended MACT floor; and
  - f. any other information reasonably needed by the permitting authority including, at the discretion of the permitting authority, information required pursuant to Subpart A of 40 CFR Part 63.

The Part II application for a MACT determination may, but is not required to, contain the following information:

- a. recommended emission limitations for the affected source and support information (the permittee may recommend a specific design, equipment, work practice, or operational standard, or combination thereof, as an emission limitation);
  - b. a description of the control technologies that would be applied to meet the emission limitation, including technical information on the design, operation, size, estimated control efficiency and any other information deemed appropriate by the permitting authority, and identification of the affected sources to which the control technologies must be applied; and
  - c. relevant parameters to be monitored and frequency of monitoring to demonstrate continuous compliance with the MACT emission limitation over the applicable reporting period.
3. If the NESHAP is promulgated before the Part II application is due for the relevant source category, the permittee may be subject to the rule as an existing major source with a compliance date as specified in the NESHAP. If subject, the permittee shall submit the following notifications:
    - a. Unless otherwise specified in the relevant Subpart, within 120 days after promulgation of a 40 CFR Part 63 Subpart to which the source is subject, the permittee shall submit an Initial Notification Report that contains the following information, in accordance with 40 CFR Part 63.9(b)(2):
      - i. the name and mailing address of the permittee;
      - ii. the physical location of the source if it is different from the mailing address;
      - iii. identification of the relevant MACT standard and the source's compliance date;
      - iv. a brief description of the nature, design, size, and method of operation of the source, and an identification of the types of emission points within the affected source subject to the relevant standard and the types of HAPs emitted; and
      - v. a statement confirming the facility is a major source for HAPs.

**A. State and Federally Enforceable Section (continued)**

b. Unless otherwise specified in the relevant Subpart, within 60 days following completion of any required compliance demonstration activity specified in the relevant Subpart, the permittee shall submit a notification of compliance status that contains the following information:

i. the methods used to determine compliance;

ii. the results of any performance tests, visible emission observations, continuous monitoring systems performance evaluations, and/or other monitoring procedures or methods that were conducted;

iii. the methods that will be used for determining continuous compliance, including a description of monitoring and reporting requirements and test methods;

iv. the type and quantity of HAPs emitted by the source, reported in units and averaging times in accordance with the test methods specified in the relevant Subpart;

v. an analysis demonstrating whether the affected source is a major source or an area source;

vi. a description of the air pollution control equipment or method for each emission point, including each control device or method for each HAP and the control efficiency (percent) for each control device or method; and

vii. a statement of whether or not the permittee has complied with the requirements of the relevant Subpart.

4. 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.

**B. State Only Enforceable Section**

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

Z001 - fire pump; and  
F001 - unpaved roadways.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations as well as any emission limitations and/or control requirements contained within a permit to install for the emissions unit.

### 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

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>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

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**

1.45 lbs/hour VOC\*, when firing natural gas.

2.7 lbs/hour VOC\*, when firing number two fuel oil.

\* 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.

17 lbs/hour OC, when firing natural gas.

10.61 lbs/hour OC, when firing number two fuel oil.

60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

2 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number two fuel oil.

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

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

See 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) and 3745-31-05(D).

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(D).

See A.I.2.h below.

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG

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

## **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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c** In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e** In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h** 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.

## **II. Operational Restrictions**

- 1.** The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2.** The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## **II. Operational Restrictions (continued)**

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## **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/or 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/or when burning number two fuel oil.
  - e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO2 emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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 nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

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

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

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

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

1.45 lbs/hour VOC\*, when firing natural gas.

2.7 lbs/hour VOC\*, when firing number two fuel oil.

\* 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.

17 lbs/hour OC, when firing natural gas.

10.61 lbs/hour OC, when firing number two fuel oil.

60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

2 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number two fuel oil.

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

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

See 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) and 3745-31-05(D).

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(D).

See A.I.2.h below.

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG

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

## **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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c** In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e** In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h** 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.

## **II. Operational Restrictions**

- 1.** The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2.** The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## **II. Operational Restrictions (continued)**

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## **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/or 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/or when burning number two fuel oil.
  - e. The summation of the NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO<sub>2</sub> emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

**1.a** Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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 nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

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

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

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

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

1.45 lbs/hour VOC\*, when firing natural gas.

2.7 lbs/hour VOC\*, when firing number two fuel oil.

\* 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.

17 lbs/hour OC, when firing natural gas.

10.61 lbs/hour OC, when firing number two fuel oil.

60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

2 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number two fuel oil.

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

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

See 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) and 3745-31-05(D).

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(D).

See A.I.2.h below.

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG

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

## 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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h 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.

## II. Operational Restrictions

- 1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## **II. Operational Restrictions (continued)**

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## **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/or 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/or when burning number two fuel oil.
  - e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO2 emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas  
33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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 nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		1.45 lbs/hour VOC*, when firing natural gas.
		2.7 lbs/hour VOC*, when firing number two fuel oil.
		* 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.
		17 lbs/hour OC, when firing natural gas.
		10.61 lbs/hour OC, when firing number two fuel oil.
		60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		2 lbs/hour particulate emissions when firing natural gas.
		7 lbs/hour particulate emissions when firing number two fuel oil.
		8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.
		See 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) and 3745-31-05(D).
	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(D).
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	See A.I.2.h below.

## **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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c** In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e** In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h** 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.

## **II. Operational Restrictions**

- 1.** The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2.** The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## II. Operational Restrictions (continued)

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## 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/or 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/or when burning number two fuel oil.
  - e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO2 emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

- 1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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

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>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

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

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

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

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

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

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

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

1.45 lbs/hour VOC\*, when firing natural gas.

2.7 lbs/hour VOC\*, when firing number two fuel oil.

\* 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.

17 lbs/hour OC, when firing natural gas.

10.61 lbs/hour OC, when firing number two fuel oil.

60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

2 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number two fuel oil.

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

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

See 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) and 3745-31-05(D).

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(D).

See A.I.2.h below.

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG

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

## **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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c** In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e** In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h** 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.

## **II. Operational Restrictions**

- 1.** The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2.** The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## II. Operational Restrictions (continued)

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## 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/or 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/or when burning number two fuel oil.
  - e. The summation of the NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO<sub>2</sub> emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub>\*, CO\*, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

- 1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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

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>
Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

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

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

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

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

1.45 lbs/hour VOC\*, when firing natural gas.

2.7 lbs/hour VOC\*, when firing number two fuel oil.

\* 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.

17 lbs/hour OC, when firing natural gas.

10.61 lbs/hour OC, when firing number two fuel oil.

60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

2 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number two fuel oil.

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

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

See 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) and 3745-31-05(D).

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(D).

See A.I.2.h below.

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG

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

## **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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c** In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e** In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h** 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.

## **II. Operational Restrictions**

- 1.** The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2.** The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## II. Operational Restrictions (continued)

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## 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/or 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/or when burning number two fuel oil.
  - e. The summation of the NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO<sub>2</sub> emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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 nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO<sub>2</sub>/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO<sub>2</sub> when firing natural gas.

14.7 lbs/hour SO<sub>2</sub> when firing number two fuel oil.

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**

1.45 lbs/hour VOC\*, when firing natural gas.

2.7 lbs/hour VOC\*, when firing number two fuel oil.

\* 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.

17 lbs/hour OC, when firing natural gas.

10.61 lbs/hour OC, when firing number two fuel oil.

60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

2 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number two fuel oil.

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

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

See 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) and 3745-31-05(D).

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(D).

See A.I.2.h below.

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG

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

## 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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h 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.

## II. Operational Restrictions

- 1. The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2. The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## II. Operational Restrictions (continued)

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## 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/or 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/or when burning number two fuel oil.
  - e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO2 emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

- 1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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 nominal capacity of 269.71 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(D) PTI 08-04080	120 TPY NOx as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		5.7 TPY SO2 as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		7.4 TPY VOC* as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
	40 CFR Part 75	See Sections A.II.6 and A.III.2. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.
	OAC rule 3745-17-11(B)(4)	0.040 lb particulate emissions/mmBtu actual heat input.

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

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

Emissions Unit: **G4CT2 - Generator No. 4/Turbine No. 2 (B008)**

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

**Applicable Rules/  
Requirements**

**Applicable Emissions  
Limitations/Control  
Measures**

OAC rule 3745-31-05(A)(3)  
PTI 08-04080

NOx emissions shall not exceed 25 ppmvd at 15% oxygen when firing natural gas, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

NOx emissions shall not exceed 42 ppmvd at 15% oxygen when firing number two fuel oil, based on a one-hour average as determined through CEMs, excluding start-up and shutdown periods.

NOx emissions shall not exceed 46.7 lbs/hour when firing number two fuel oil.

120 TPY NOx combined from B001, B002, B003, B004, B005, B006, B007 and B008.

CO emissions shall not exceed 73.5 lbs/hour when firing natural gas.

CO emissions shall not exceed 33.4 lbs/hour when firing number two fuel oil.

0.06 lb SO2/mmBtu actual heat input.

The permittee shall combust oil that contains equal to or less than 0.05 percent, by weight, sulfur.

0.18 lb/hour SO2 when firing natural gas.

14.7 lbs/hour SO2 when firing number two fuel oil.

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

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

Emissions Unit: **G4CT2 - Generator No. 4/Turbine No. 2 (B008)**

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		1.45 lbs/hour VOC*, when firing natural gas.
		2.7 lbs/hour VOC*, when firing number two fuel oil.
		* 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.
		17 lbs/hour OC, when firing natural gas.
		10.61 lbs/hour OC, when firing number two fuel oil.
		60.1 TPY OC emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		2 lbs/hour particulate emissions when firing natural gas.
		7 lbs/hour particulate emissions when firing number two fuel oil.
		8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
		Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.
		See 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) and 3745-31-05(D).
	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(D).
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	See A.I.2.h below.

## **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 to 25 ppmvd when burning natural gas and 42 ppmvd when burning number two fuel oil, and the 120 TPY NOx allowable.
- 2.b** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.c** In lieu of the requirements of 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 fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.d** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR Part 60, Subpart GG (section 60.334(b)), the permittee shall install and operate systems to continuously monitor and record emissions of NOx from this emissions unit.
- 2.e** In lieu of monitoring the stack gas flowrate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx CEMs in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO CEMs 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.
- 2.f** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.g** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and continuous emissions monitoring requirements for this emissions unit in accordance with this permit.
- 2.h** 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.

## **II. Operational Restrictions**

- 1.** The maximum annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 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 combust 1.86 additional hours of natural gas for every hour fuel oil not combusted, up to 10,154 hours annually of natural gas combustion.

- 2.** The quality of number two fuel oil burned in this emissions unit shall have a combination of heat and sulfur content which is sufficient to comply with the allowable sulfur dioxide emission limitation.

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. 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 Ohio EPA District Office or local air agency.

## **II. Operational Restrictions (continued)**

3. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.

## **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/or 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/or when burning number two fuel oil.
  - e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - f. The rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - h. The rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - j. The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
  - l. The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons.
2. The permittee shall monitor the sulfur content of the fuel oil being fired in the turbine. The frequency of monitoring shall be determined as follows:
  - a. If the turbine is supplied fuel oil from a bulk storage tank, the values shall be determined on each occasion that fuel oil is transferred to the storage tank from any other source.
  - b. If the turbine is supplied its fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated SO2 emission rate (in lb/mmBtu).

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

3. The permittee shall operate and maintain equipment to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the 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<sub>x</sub> monitoring system has been certified in accordance with 40 CFR Part 60 and/or 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<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, and results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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 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 and results of daily zero/span calibration checks, 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. 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.

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 which identify each period during which an exemption for ice-fog provided in 40 CFR 60.332(f) is in effect. The report 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<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.
  - b. The rolling, 12-month operating hours limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, combined.

\* The 12-month, rolling 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.

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

3. The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for firing in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The total quantity of oil received in each shipment (gallons) and the calculated SO<sub>2</sub> emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analyses.
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<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> 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.

#### **IV. Reporting Requirements (continued)**

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 and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
8. The permittee shall submit annual reports that specify the total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, OC, and VOC emissions from this emissions unit for the previous calendar year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit 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:

- 1.a Emission Limitation -

120 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.3.

The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.

**V. Testing Requirements (continued)**

**1.b** Emission Limitation -

249 TPY CO as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through the use of CEMs as specified in A.III.4.

The monthly CO emissions shall be added to the total CO emissions from the previous 11 months to determine the rolling, 12-month summation of CO emissions.

**1.c** Emission Limitation -

5.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:

i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning of 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 SO<sub>2</sub> 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) times the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur divided by the average heat content of the fuel burned during the period times the combined actual heat input while burning number 2 fuel oil in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/hr) and then dividing by 2,000 lbs/ton.

iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous 11 months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

**V. Testing Requirements (continued)**

**1.d** Emission Limitation -

7.4 TPY VOC a rolling, 12-month summation combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.1. and shall be determined through a summation of the 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.
- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the average emission rates derived from the most recent emission test that demonstrated that the emissions unit was in compliance.

**1.e** Emission Limitation -

Sulfur content of oil shall be equal to or less than 0.05 percent, by weight, sulfur.

Applicable Compliance Method -

Compliance shall be based upon the fuel oil analysis requirement specified in A.II.6 and the record keeping requirements specified in A.III.2.

**1.f** Emission Limitation -

0.040 lb particulate emissions/mmBtu 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).

**V. Testing Requirements (continued)**

**1.g** Emission Limitations -

NOx emissions shall not exceed 25 ppmvd at 15% oxygen, when firing natural gas, based on a one-hour average, excluding start-up and shutdown periods.

NOx emissions shall not exceed 29.9 lbs/hour when firing natural gas.

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

NOx emissions not not exceed 46.7 lbs/hr when firing number two fuel oil.

Applicable Compliance Method -

Compliance with the NOx emission and concentration limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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 7.

**1.h** Emission Limitations -

73.5 lbs CO/hour, when firing natural gas

33.4 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method -

Compliance with the CO emission limitations may be based upon the continuous emissions monitoring requirement and the monitoring/record keeping required by this permit.

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.

**1.i** Emission Limitation -

0.06 lb SO<sub>2</sub>/mmBtu actual heat input

Applicable Compliance Method -

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and 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).

**V. Testing Requirements (continued)**

**1.j** Emission Limitations -

0.18 lb/hour SO<sub>2</sub>, when firing natural gas.  
14.7 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

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 and record keeping requirements specified in A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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.

**1.k** Emission Limitations -

1.45 lbs/hour VOC, when firing natural gas.  
2.7 lbs/hour VOC, when firing number two fuel oil.

Applicable Compliance Method -

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 25.

**1.l** Emission Limitations -

17 lbs/hour OC, when firing natural gas.  
10.61 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be based upon the record keeping requirements specified in A.III.1. and by 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 4 and 25.

**1.m** Emission Limitation -

60.1 TPY organic emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.n** Emission Limitation -

2 lbs/hour particulate emissions, when firing natural gas.  
7 lbs/hour particulate emissions, when firing number 2 fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by 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.

**V. Testing Requirements (continued)**

**1.o** Emission Limitation -

8.9 TPY particulate emissions combined from emissions units B001, B002, B003, B004, B005, B006, B007, and B008

Applicable Compliance Method -

Compliance may be based upon record keeping as specified in A.III.1. and the manufacturer's guaranteed emissions data.

**1.p** Emission Limitation -

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

Applicable Compliance Method -

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

**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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