



State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL MODIFICATION
DARKE COUNTY**

CERTIFIED MAIL

Street Address:

122 S. Front Street

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049

Application No: 08-04080

Fac ID: 0819070237

DATE: 8/12/2004

DPL Energy LLC Greenville Electric Gener
Amy Wright
1065 Woodman Dr
Dayton, OH 45432-1423

Enclosed Please find a modification to the Ohio EPA Permit To Install referenced above which will modify the terms and conditions.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

Sincerely,

Michael W. Ahern

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

cc: USEPA

RAPCA



Permit To Install
Terms and Conditions

Issue Date: 8/12/2004
Effective Date: 8/12/2004

FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 08-04080

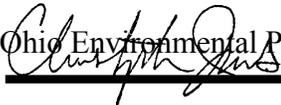
Application Number: 08-04080
Facility ID: 0819070237
Permit Fee: **\$1500**
Name of Facility: DPL Energy LLC Greenville Electric Gener
Person to Contact: Amy Wright
Address: 1065 Woodman Dr
Dayton, OH 45432-1423

Location of proposed air contaminant source(s) [emissions unit(s)]:
**5125 Sebring Warner Rd
Greenville, Ohio**

Description of proposed emissions unit(s):
Administrative modification to 08-04080 for B001 through B008 to increase hourly heat input and hourly allowable for SO2.

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

This permit is granted subject to the conditions attached hereto.


Ohio Environmental Protection Agency

Director

Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. 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. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, 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. 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.
- 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 are true, accurate, and complete.

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, i.e., upset, 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. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

3. Risk Management Plans

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

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.

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.

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. 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.

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. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

8. 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.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - 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 ORC section 3704.08.
 - 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.

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10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

12. 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.

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B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the 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 (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. 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.)

3. 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.

4. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete

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within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

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

7. Applicability

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This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

If applicable, the applicant shall provide Ohio EPA with a written certification (see enclosed form if applicable) that the facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

9. 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.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

**SUMMARY (for informational purposes only)
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS**

<u>Pollutant</u>	<u>Tons Per Year</u>
NOx	120
CO	249
SO2	5.7
Particulates	8.9
VOC	7.4

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

1. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, and 40 CFR Part 75 are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 and 40 CFR Part 75 are also federally enforceable.
2. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. 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 Permit To Install Facility Specific Terms and Conditions

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B001 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT1 - Generator No. 1, Turbine No. 1	OAC rule 3745-31-05(C)

40 CFR Part 75

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

OAC rule 3745-31-05(A)(3)

Applicable Emissions
Limitations/Control Measures

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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

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.

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

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)

DPL E**PTI A****Modification Issued: 8/12/2004**Emissions Unit ID: **B001**

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

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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when firing natural gas.

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

*The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 requirements, that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g 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 and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.
- 2.b** In lieu of the requirements 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 burned in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system for this emissions unit.
- 2.c** In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 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.d** In lieu of monitoring the stack gas flow rate as required by 40 CFR Part 60, Appendix B - Performance Specification 6, the permittee shall use certified NOx continuous emissions monitoring system in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and certified CO continuous emissions monitoring system in conjunction with a fuel flow monitor (in a manner similar to that used for NOx) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply to the NOx and CO continuous emissions monitoring system.
- 2.e** In lieu of the excess emissions reports required under 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- 2.f** In lieu of the test methods and procedures required under 40 CFR Part 60.335 (Subpart GG), the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249

1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

DPL E

PTI A

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Emissions Unit ID: B001

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694
1 - 6	8,863	694
1 - 7	8,863	694

DPL E**PTI A**Emissions Unit ID: **B001****Modification Issued: 8/12/2004**

1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694
1 - 12	8,863	694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period

Emissions Unit ID: B001

when burning natural gas and/or when burning fuel oil no. 2.

- e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- o. The date, time and duration of each start-up and shutdown period.

- p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

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

b. Alternative 2:

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

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

3. Continuous NO_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part

Emissions Unit ID: **B001**

60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NO_x in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
- h. The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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Facility ID: 0819070237

Emissions Unit ID: B001

4. Continuous CO Emission Monitoring

- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

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quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60,

Emissions Unit ID: B001

Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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 to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x*, CO*, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC

Emissions Unit ID: **B001**

emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.

- c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
- d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* The 12-month, rolling emission summation 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quantity of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
- 4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

Emissions Unit ID: B001

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
 - c. 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
- a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
 DAPC - Permit Management Unit
 P.O. Box 163669
 Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
 117 S. Main St.
 Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

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

- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 eleven 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.

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.

f. Emission Limitation -

0.040 lb particulate emissions/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall 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) or an equivalent method as approved by the Director.

g. Emission Limitation -

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.

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.

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

Applicable Compliance Method -

Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitations.

If required, the permittee shall demonstrate compliance with the NOx concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

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 limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitations.

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 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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 Section A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

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

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.

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

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/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 or an equivalent method as approved by the Director..

k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No.2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

DPL F

PTI A

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Emissions Unit ID: B001

B. State Only Enforceable Section**I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
B001 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT1 - Generator No. 1, Turbine No. 1	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

40

DPL E

PTI A

Modification Issued: 8/12/2004

Emissions Unit ID: **B001**

V. Testing Requirements

None

DPL Energy LLC Greenville Electric Gener
PTI Application: 08 04080
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Facility ID: 0819070237

Emissions Unit ID: **B001**

VI. Miscellaneous Requirements

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
B002 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT2 - Generator No. 1, Turbine No. 2	OAC rule 3745-31-05(C)
	40 CFR Part 75
	OAC rule 3745-17-11(B)(4)
	OAC rule 3745-31-05(A)(3)

Emissions Unit ID: B002

Applicable Emissions
Limitations/Control Measures

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

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.

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

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

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

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.

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

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shutdown

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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when firing natural gas.

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

*The permittee has submitted emissions data that supports, for purposes

of avoiding both federal 112(g) and OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g below.

Emissions Unit ID: B002

2. Additional Terms and Conditions

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

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is not longer part of the State regulations. However, that rule revision has not yet been submitted 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 requirements to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not

Emissions Unit ID: B002

exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694
1 - 6	8,863	694
1 - 7	8,863	694
1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694

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1 - 12 8,863 694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
 - e. The summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.

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- f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- o. The date, time and duration of each start-up and shutdown period.
- p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.

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

- a. Alternative 1:

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

- b. Alternative 2:

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

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

3. Continuous NO_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for

Emissions Unit ID: **B002**

approval by the Ohio EPA, Central Office.

- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 , and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NO_x in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
- h. The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring

Emissions Unit ID: **B002**

systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

Modification Issued: 8/12/20044. Continuous CO Emission Monitoring

- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

Modification Issued: 8/12/2004

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 applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60,

Emissions Unit ID: **B002**

Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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 to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x*, CO*, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC

Emissions Unit ID: **B002**

emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.

- c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
- d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* The 12-month, rolling emission summation 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quantity of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
 - c. If there are no CO excess 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:
- a. Construction date (no later than 30 days after such date);
 - b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
 - c. Actual start-up date (within 15 days after such date); and,
 - d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirements may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

*The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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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 a continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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 SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.

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- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 eleven 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.

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.

f. Emission Limitation -

0.040 lb particulate emissions/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall 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) or an equivalent method as approved by the Director.

g. Emission Limitation -

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.

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.

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

Applicable Compliance Method -

Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emissions limitations.

If required, the permittee shall demonstrate compliance with the NOx concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

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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 limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall be used to determine compliance with hourly emissions limitations.

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 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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 Section A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

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

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.

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

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or an equivalent method as approved by the Director.

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k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

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Applicable Compliance Method -

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

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 or an equivalent method as approved by the Director.

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

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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No. 2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
B002 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT2 - Generator No. 1, Turbine No. 2	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

Emissions Unit ID: **B002**

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11(B)(4)
B003 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT1 - Generator No. 2, Turbine No. 1	OAC rule 3745-31-05(C)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions
Limitations/Control Measures

120 TPY NO_x 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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

NO_x 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.

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

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)

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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

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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when

firing natural gas.

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

*The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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

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

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g below

Emissions Unit ID: B003

2. Additional Terms and Conditions

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

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is not longer part of the State regulations. However, that rule revision has not yet been submitted 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 requirements to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Emissions Unit ID: B003

<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO₂ emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO₂ emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not

Emissions Unit ID: **B003**

exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694
1 - 6	8,863	694
1 - 7	8,863	694
1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694

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1 - 12 8,863 694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.
 - e. The summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.

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- f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- o. The date, time and duration of each start-up and shutdown period.
- p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.

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

- a. Alternative 1:

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

- b. Alternative 2:

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

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

3. Continuous NO_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for

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approval by the Ohio EPA, Central Office.

- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 , and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard(s) . Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NO_x in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.
- h. The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring

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systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.

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- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

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

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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.

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2. The permittee shall submit quarterly (excursion) deviation reports to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
 - d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

*The 12-month, rolling emission summation 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quality of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit .
 - b. The permittee shall submit reports within 30 days following the end of each calendar

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quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit..
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
- c. If there are no CO excess 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at

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the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. Actual start-up date (within 15 days after such date); and,
- d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

*The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be

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determined in accordance with the following method(s):

a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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.

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- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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.

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- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous eleven 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.
- 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.
- f. Emission Limitation -

0.040 lb particulate emissions/mmBtu actual heat input

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Applicable Compliance Method -

Compliance shall 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) or an equivalent method as approved by the Director.

g. Emission Limitation -

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.

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.

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

Applicable Compliance Method -

Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with hourly emissions limitations.

If required, the permittee shall demonstrate compliance with the NOx concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

73.5 lbs CO/hour, when firing natural gas

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

Applicable Compliance Method -

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Compliance with the CO emission limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emissions limitations.

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 10 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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 Section A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

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

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.
14.7 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

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When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/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 or an equivalent method as approved by the Director.

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k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

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Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

- 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.

- 2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No. 2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

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

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
B003 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT1 - Generator No. 2, Turbine No. 1	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

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VI. Miscellaneous Requirements

None

Modification Issued: 8/12/2004**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11(B)(4)
B004 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT - Generator No. 2, Turbine No. 2	OAC rule 3745-31-05(C)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions
Limitations/Control Measures

120 TPY NO_x 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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

NO_x 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.

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

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)

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NO_x 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

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

120 TPY NO_x 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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when firing natural gas.

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

*The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 requirements, that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See. A.I.2.g below.

Emissions Unit ID: B004

2. Additional Terms and Conditions

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

On November 5, 2002, OAC rule 3745-21-08 was revised as 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.

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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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83

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1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

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<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694
1 - 6	8,863	694
1 - 7	8,863	694

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1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694
1 - 12	8,863	694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period

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when burning natural gas and/or when burning fuel oil no. 2.

- e. The summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NOx emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NOx emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO2 emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO2 emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- o. The date, time and duration of each start-up and shutdown period.

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- p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

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a. Alternative 1:

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

b. Alternative 2:

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

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

3. Continuous NO_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part

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60, Appendix B, Performance Specification 2 , and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NOx monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NOx in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.
- h. The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits as required in 40 CFR Part 60.

4. Continuous CO Emission Monitoring

- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during

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regular office hours.

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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 to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units B001, B002,

Emissions Unit ID: **B004**

B003, B004, B005, B006, B007, and B008 combined.

- b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
- c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
- d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* The 12-month, rolling emission summation 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quality of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control

Emissions Unit ID: **B004**

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.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit.
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
- c. 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

- c. Actual start-up date (within 15 days after such date); and,
- d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

- 7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified

in A.III.3.

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

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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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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 SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.

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- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 eleven 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

e. Emission Limitation -

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

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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.

f. Emission Limitation -

0.040 lb particulate emissions/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall 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) or an equivalent method as approved by the Director.

g. Emission Limitation -

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.

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.

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

Applicable Compliance Method -

Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitations.

If required, the permittee shall demonstrate compliance with the NOx concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

73.5 lbs CO/hour, when firing natural gas

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

Applicable Compliance Method -

Compliance with the CO emission limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitations.

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 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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 Section A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

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

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.

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

Emissions Unit ID: **B004**

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/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 or an equivalent method as approved by the Director.

k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 test performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or an equivalent method as approved by the Director.

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

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n. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No.2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

** The permittee has requested that if the average emission rate (lbs/hour) derived from the stack test conducted in accordance with these terms is less than the permit VOC allowable listed in Term A.I.1., they may apply for an air permit to install modification to increase the hours of

Emissions Unit ID: **B004**

operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

Modification Issued: 8/12/2004**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
B004 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT2 - Generator No. 2, Turbine No. 2	None	None

2. Additional Terms and Conditions**2.a** None**II. Operational Restrictions**

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Modification Issued: 8/12/2004**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11(B)(4)
B005 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT1 - Generator No. 3, Turbine No. 1	OAC rule 3745-31-05(C)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions
Limitations/Control Measures

120 TPY NO_x 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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

NO_x 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.

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

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)

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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

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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when

firing natural gas.

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

* The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 requirements, that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g below.

Emissions Unit ID: B005

2. Additional Terms and Conditions

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

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 requirements to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Emissions Unit ID: B005

<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO₂ emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO₂ emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not

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exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694

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1 - 6	8,863	694
1 - 7	8,863	694
1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694
1 - 12	8,863	694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup,

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the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.

- e. The summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NO_x emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO₂ emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.

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- o. The date, time and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

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

b. Alternative 2:

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

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

3. Continuous NOx Emission Monitoring

- a. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NOx monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon requests.
- f. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NOx in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part

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60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

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

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- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s) Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

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

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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.

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2. The permittee shall submit quarterly deviation (excursion) reports to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
 - d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* The 12-month, rolling emission summation 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quantity of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar

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quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit.
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
- c. 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at

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the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. Actual start-up date (within 15 days after such date); and,
- d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be

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determined in accordance with the following method(s):

a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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.

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- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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.

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- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous eleven 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.
- 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.
- f. Emission Limitation -
- 0.040 lb particulate emissions/mmBtu actual heat input
- Applicable Compliance Method -
- Compliance shall 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) or an equivalent method as approved by the Director.
- g. Emission Limitation -
- 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.
- 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.
- NOx emissions shall not exceed 46.7 lbs/hr when firing number two fuel oil.
- Applicable Compliance Method -
- Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission

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limitation.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

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 limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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 Section A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

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

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.
14.7 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/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 or an equivalent method as approved by the Director.

k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

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

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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 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
- c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No. 2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

** The permittee has requested that if the average emission rate (lbs/hour) derived from the stack test conducted in accordance with these terms is less than the permit VOC allowable listed in A.I.1., they may apply for an air permit to install modification to increase the hours of operation.

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The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
B005 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT1 - Generator No. 3, Turbine No. 1	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Modification Issued: 8/12/2004**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11(B)(4)
B006 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT2 - Generator No. 3, Turbine No. 2	OAC rule 3745-31-05(C)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions
Limitations/Control Measures

120 TPY NO_x 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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

NO_x 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.

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

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)

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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

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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when

firing natural gas.

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

*The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 requirements, that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g below.

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2. Additional Terms and Conditions

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

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.

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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 control technology requirements established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

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<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO₂ emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO₂ emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not

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exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694

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1 - 6	8,863	694
1 - 7	8,863	694
1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694
1 - 12	8,863	694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup,

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the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.

- e. The summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NO_x emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO₂ emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.

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- o. The date, time and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

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

b. Alternative 2:

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

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

3. Continuous NOx Emission Monitoring

- a. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in the units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NOx monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NOx in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part

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60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

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

Modification Issued: 8/12/20044. Continuous CO Emission Monitoring

- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

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

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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.

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2. The permittee shall submit quarterly deviation (excursion) reports to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
 - d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* 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 74.

These quarterly reports shall be submitted in accordance with Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quantity of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit.
 - b. The permittee shall submit reports within 30 days following the end of each calendar

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quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit.
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
- c. If there are no CO excess 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at

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the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. Actual start-up date (within 15 days after such date); and,
- d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007, and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be

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determined in accordance with the following method(s):

a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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.

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- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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.

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- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous eleven 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.
- 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.
- f. Emission Limitation -
- 0.040 lb particulate emissions/mmBtu actual heat input
- Applicable Compliance Method -
- Compliance shall 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) or an equivalent method as approved by the Director.
- g. Emission Limitation -
- 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.
- 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.
- NOx emissions shall not exceed 46.7 lbs/hr when firing number two fuel oil.
- Applicable Compliance Method -
- Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission

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limitation.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

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 limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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).

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.
14.7 lbs/hour SO₂, when firing number two fuel oil.

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall 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 SO₂/mmBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6 or an equivalent method as approved by the Director.

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k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

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Applicable Compliance Method -

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

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 or an equivalent method as approved by the Director.

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

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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No.2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

** The permittee has requested that if the average emission rate (lbs/hour) derived from the stack test conducted in accordance with these terms is less than the permit VOC allowable listed in Term A.I.1., they may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
B006 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT2 - Generator No. 3, Turbine No. 2	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

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V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11(B)(4)
B007 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT1 - Generator No. 4, Turbine No. 1	OAC rule 3745-31-05(C)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions
Limitations/Control Measures

120 TPY NO_x 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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

NO_x 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.

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

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)

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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

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

See Section A.II.6.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when

firing natural gas.

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

* The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 requirements, that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g below.

Emissions Unit ID: B007

2. Additional Terms and Conditions

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

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is not longer part of the State regulations. However, that rule revision has not yet been submitted 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 requirements to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

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<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not

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exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694

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1 - 6	8,863	694
1 - 7	8,863	694
1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694
1 - 12	8,863	694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup,

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the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.

- e. The summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NO_x emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO₂ emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.

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- o. The date, time and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

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

b. Alternative 2:

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

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

3. Continuous NOx Emission Monitoring

- a. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NOx monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NOx in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part

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60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

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

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- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4 .
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s) Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

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

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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.

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2. The permittee shall submit quarterly deviation (excursion) reports to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
 - d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quantity of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emissions limitations specified in the terms and conditions of this permit .
 - b. The permittee shall submit reports within 30 days following the end of each calendar

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quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emissions limitation specified in the terms and conditions of this permit .
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
- c. 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at

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the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. Actual start-up date (within 15 days after such date); and,
- d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for emissions units in the annual Fee Emission Report.

* The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be

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determined in accordance with the following method(s):

a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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.

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- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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.

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- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous eleven 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.
- 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.
- f. Emission Limitation -

0.040 lb particulate emissions/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall 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) or an equivalent method as approved by the Director.
- g. Emission Limitation -

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.

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.

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

Applicable Compliance Method -

Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission

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limitation.

If required, the permittee shall demonstrate compliance with the NO_x concentration and hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

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 limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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

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appropriate equation specified in AP-42 Table 3.1-1 (10/96).

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.

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

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/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 or an equivalent method as approved by the Director.

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k. Emission Limitation -

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

Applicable Compliance Method -

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 or an equivalent method as approved by the Director.

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

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Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

p. Emission Limitation -

Visible particulate emissions shall not exceed 10% opacity visible emissions, 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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate, of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test

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methods may be used with prior approval from the Ohio EPA.

- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No.2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

** The permittee has requested that if the average emission rate (lbs/hour) derived from the stack test conducted in accordance with these terms is less than the permit VOC allowable listed in Term A.I.1., they may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirements to secure either an administrative or a new air permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
B007 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT1 - Generator No. 4, Turbine No. 1	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

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DPL Energy LLC Greenville Electric Gener
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Facility ID: 0819070237

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V. Testing Requirements

None

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VI. Miscellaneous Requirements

None

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-17-11(B)(4)
B008 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT2 - Generator No. 4, Turbine No. 2	OAC rule 3745-31-05(C)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions
Limitations/Control Measures

120 TPY NO_x 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.

See Sections A.III.2. and A.III.6. for the specific monitoring and record keeping requirements and Section A.IV.3. for the specific reporting requirements.

0.040 lb particulate emissions/mmBtu actual heat input

NO_x 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.

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

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)

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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

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

See Section A.II.6. below.

0.195 lb/hour SO₂ when firing natural gas.

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

1.45 lb/hour VOC*, when

firing natural gas.

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

*The permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and OAC rule 3745-31-28 requirements, that all Hazardous Air Pollutants (HAPs) are less than 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.

1.7 lbs/hour particulate emissions when firing natural gas.

7 lbs/hour particulate emissions when firing number 2 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 rule 3745-17-11(B)(4), 3745-21-08(B), 3745-23-06(B) and 3745-31-05(C).

The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(C).

See A.I.2.g below.

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2. Additional Terms and Conditions

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

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is not longer part of the State regulations. However, that rule revision has not yet been submitted 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 requirements to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

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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).

II. Operational Restrictions

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx emission rate (TPY)</u>
1	40
1 - 2	80
1 - 3	120
1 - 4	120
1 - 5	120
1 - 6	120
1 - 7	120
1 - 8	120
1 - 9	120
1 - 10	120
1 - 11	120
1 - 12	120

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

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<u>Month</u>	<u>Cumulative Summation of the CO emission rate (TPY)</u>
1	83
1 - 2	166
1 - 3	249
1 - 4	249
1 - 5	249
1 - 6	249
1 - 7	249
1 - 8	249
1 - 9	249
1 - 10	249
1 - 11	249
1 - 12	249

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative SO₂ emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO₂ emission rate (TPY)</u>
1	1.14
1 - 2	2.28
1 - 3	3.42
1 - 4	4.56
1 - 5	5.7
1 - 6	5.7
1 - 7	5.7
1 - 8	5.7
1 - 9	5.7
1 - 10	5.7
1 - 11	5.7
1 - 12	5.7

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not

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exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC emission rate (TPY)</u>
1	2.5
1 - 2	4.9
1 - 3	7.4
1 - 4	7.4
1 - 5	7.4
1 - 6	7.4
1 - 7	7.4
1 - 8	7.4
1 - 9	7.4
1 - 10	7.4
1 - 11	7.4
1 - 12	7.4

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation.

5. 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 fuel oil no. 2., based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first twelve calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Fuel Oil No. 2**</u>
1	2,954	231
1 - 2	5,908	463
1 - 3	8,863	694
1 - 4	8,863	694
1 - 5	8,863	694

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1 - 6	8,863	694
1 - 7	8,863	694
1 - 8	8,863	694
1 - 9	8,863	694
1 - 10	8,863	694
1 - 11	8,863	694
1 - 12	8,863	694

** 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.

After the first 12 calendar months of operation following startup of emissions units B001, B002, B003, B004, B005, B006, B007, and B008, compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours.

6. The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
7. The permittee shall burn only pipeline natural gas, and/or number two fuel oil in this emissions unit.
8. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.

III. Monitoring and/or Record keeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours /month when burning natural gas and/or when burning fuel oil no. 2.
 - d. During the first twelve calendar months of operation following startup, the cumulative operating hours for each calendar month when burning natural gas and/or when burning fuel oil no. 2. Following the first twelve calendar months of operation following startup,

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the rolling, 12-month summation of the operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in hours/rolling, 12-month period when burning natural gas and/or when burning fuel oil no. 2.

- e. The summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- f. During the first twelve calendar months of operation following startup, the cumulative NO_x emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the NO_x emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- g. The summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- h. During the first twelve calendar months of operation following startup, the cumulative CO emissions for each calendar month. Following the first twelve calendar months of operation following startup, the rolling, 12-month summation of the CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- i. The summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- j. During the first twelve calendar months of operation following startup, the cumulative SO₂ emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the SO₂ emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- k. The summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/month.
- l. During the first twelve calendar months of operation following startup, the cumulative VOC emissions for each calendar month. Following the first twelve calendar months of operation following startup, The rolling, 12-month summation of the VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined, in tons/rolling, 12-month period.
- m. The summation of the OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.
- n. The summation of the particulate emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, in tons.

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- o. The date, time and duration of each start-up and shutdown period.
 - p. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning natural gas. The actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007 and B008, combined, in mmBtu/month, when burning number two fuel oil.
2. The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.

a. Alternative 1:

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

b. Alternative 2:

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

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

3. Continuous NOx Emission Monitoring

- a. Prior to the installation of the continuous NOx monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of such equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2, and/or 40 CFR Part 75. Personnel from the Regional Air Pollution Control Agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Regional Air Pollution Control Agency within 30 days after the test is completed. Copies of the test results shall be sent to the Regional Air Pollution Control Agency and the Ohio EPA Central Office. Certification of the continuous NOx monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75.
- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NOx from this emissions unit in the units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.13 and 40 CFR Part 75.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NOx monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- f. The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis, in the appropriate averaging period (i.e., hourly), emissions of NOx in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks, or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part

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60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

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

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- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.
- b. Within 60 days of the startup of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.
- c. The permittee shall operate and maintain equipment to continuously monitor and record CO from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60.
- d. Each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- e. 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.
- f. The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., hourly), emissions of CO in pounds/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
- g. Within 180 days of the effective date of this permit, the permittee shall develop a written

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

- h. The permittee may conduct the relative accuracy test audits for the continuous carbon monoxide monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks.
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 install, 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 install, 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.

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2. The permittee shall submit quarterly deviation (excursion) reports to the Regional Air Pollution Control Agency that identify any exceedances of the following:
 - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO_x, CO, SO₂, and VOC emission rates from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - b. Beginning after the first twelve calendar months of operation following startup of these emissions units, the rolling, 12-month summation of the NO_x*, CO*, SO₂, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008 combined.
 - c. For the first 12 calendar months of operation following start up emissions units of B001, B002, B003, B004, B005, B006, B007, and B008, all exceedances of the maximum allowable cumulative operating hours levels.
 - d. Beginning after the first twelve calendar months of operation following startup of these emissions units B001, B002, B003, B004, B005, B006, B007, and B008, the rolling, 12-month operating hours limitations.

* 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 Section A.1. of the General Terms and Conditions 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 burning in this emissions unit and/or for each daily sample collected during a calendar month. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil and/or for each daily sample. The total quantity of oil received in each shipment (gallons), the total quantity of oil burned each day and the calculated SO₂ emission rate (lb/mmBtu) shall also be included with the copies of the permittee's or oil supplier's analysis.
4. Continuous NO_x Emission Monitoring
 - a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable emission limitations specified in the terms and conditions of this permit .
 - b. The permittee shall submit reports within 30 days following the end of each calendar

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quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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

5. Continuous CO Emission Monitoring

- a. Pursuant to OAC rules 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of the applicable emission limitation specified in the terms and conditions of this permit .
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting 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.
- c. 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 shall also 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. Pursuant to NSPS, the permittee is hereby advised of the requirement to report the following at

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the appropriate times:

- a. Construction date (no later than 30 days after such date);
- b. Anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. Actual start-up date (within 15 days after such date); and,
- d. Date of performance testing (at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC - Permit Management Unit
P.O. Box 163669
Columbus, Ohio 43216-3669

and

Regional Air Pollution Control Agency
117 S. Main St.
Dayton, Ohio 45422-1280

7. 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 which specify the total particulate, SO₂, NO_x*, CO*, OC, and VOC emissions from emissions unit B001, B002, B003, B004, B005, B006, B007 and B008, combined, for the previous calendar year. These reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

* The annual emissions for this pollutant 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 limitation(s) in Section A.I. of these terms and conditions shall be

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determined in accordance with the following method(s):

a. Emission Limitation -

120 TPY NO_x 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 a NO_x continuous emissions monitoring system as specified in A.III.3.

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

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 a CO continuous emissions monitoring system as specified in A.III.4.

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

c. Emission Limitation -

5.7 TPY SO₂ 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 monthly SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb SO₂/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.

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- ii. The monthly SO₂ emissions from the burning of number 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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 SO₂ 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/month) and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous eleven months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/mmBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

d. Emission Limitation -

7.4 TPY VOC 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 monthly VOC emissions from the burning of natural gas and number 2 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 2 fuel oil shall be determined by multiplying the operating hours while burning number 2 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.

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- iii. The monthly VOC emissions shall be added to the total VOC emissions from the previous eleven 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.
- 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.
- f. Emission Limitation -
- 0.040 lb particulate emissions/mmBtu actual heat input
- Applicable Compliance Method -
- Compliance shall 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) or an equivalent method as approved by the Director.
- g. Emission Limitation -
- 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.
- 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.
- NOx emissions shall not exceed 46.7 lbs/hr when firing number two fuel oil.
- Applicable Compliance Method -
- Compliance with the NOx concentration and emission limitations shall be based upon the data from the NOx continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission

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limitations.

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 7 or an equivalent method as approved by the Director.

h. Emission Limitation -

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 limitation shall be based upon the data from the CO continuous emissions monitoring system and the monitoring/record keeping required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10 or an equivalent method as approved by the Director.

i. Emission Limitation -

0.06 lb SO₂/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 Section A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

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

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

j. Emission Limitation -

0.195 lb/hour SO₂, when firing natural gas.

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

Applicable Compliance Method -

When firing natural gas, compliance shall 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 shall be based upon the fuel analysis and record keeping requirements specified in Section A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb SO₂/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 or an equivalent method as approved by the Director.

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k. Emission Limitation -

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

Applicable Compliance Method -

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

l. Emission Limitation -

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

Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

n. Emission Limitation -

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

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Applicable Compliance Method -

Compliance shall 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 or an equivalent method as approved by the Director.

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

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.

2. Emission testing requirements: The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted within 90 days following startup of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the VOC emission limitation.
 - c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1 through 4 and 18, 25 and/or 25A, as appropriate of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

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- d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity while combusting natural gas and No.2 fuel oil, unless otherwise specified or approved by the appropriate Ohio EPA District Office or local air agency.

** The permittee has requested that if the average emission rate (lbs/hour) derived from the stack test conducted in accordance with these terms is less than the permit VOC allowable listed in Term A.I.1., they may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirements to secure either an administrative or a new permit to install.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
B008 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a maximum capacity of 325 mmBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT1 - Generator No. 4, Turbine No. 1	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

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V. Testing Requirements

None

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DPL Energy LLC Greenville Electric Gener
DTI Application: 08 04080

Facility ID: 0819070237

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VI. Miscellaneous Requirements

None

Modification Issued: 8/12/2004**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

1. The specific operations(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 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>
F001 - unpaved roadways: access roads for oil tankers	OAC rule 3745-17-08	None, refer to section A.I.2.a of the terms and conditions of this permit.
	OAC rule 3745-17-07(B)	None, refer to section A.I.2.b of the terms and conditions of this permit.
	OAC rule 3745-31-05(A)(3)	Posting of speed limit signs stating a speed limit of no more than 15 mile per hour. No visible particulate emissions except for 3 minutes during any 60-minute period.

2. Additional Terms and Conditions

- 2.a This emissions unit is not located within the areas identified in "Appendix A" of OAC rule 3745-17-08. Therefore, pursuant to OAC rule 3745-17-08(A), OAC rule 3745-17-08 does not apply to this fugitive dust source.
- 2.b Because OAC rule 3745-17-08 is not applicable, this emissions unit is exempt from the visible particulate emissions (PE) limitation specified in OAC rule 3745-17-07(B) pursuant to OAC rule 3745-17-07(B)(11)(d).

II. Operational Restrictions

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None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

1. Compliance with the emissions limitation for the unpaved roadways and parking areas identified above shall be determined in accordance with Test Method 22 as set forth in "Appendix on Test Methods" in 40 CFR, Part 60 ("Standards of Performance for New Stationary Sources," as such Appendix existed on July 1, 1996, and the modifications listed in paragraphs (B)(4)(a) through (B)(4)(d) of OAC rule 3745-17-03.

However, this testing shall be conducted only when the Ohio EPA requests testing because the Ohio EPA has reason to believe that non-complying visible emissions are occurring.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
F001 - unpaved roadways: access road for oil tankers	None	None

2. Additional Terms and Conditions

2.a 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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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
T001 - 400,000 gallon No. 2 fuel oil internal floating roof storage tank	OAC rule 3745-31-05(A)(3)	0.01 TPY volatile organic compounds (VOC)
	OAC rule 3745-21-09(L)(1)	See Section A.I.2.
	NSPS 40 CFR Part 60 Subpart Kb	See Section A.III.2.

2. Additional Terms and Conditions

- 2.a The fixed roof storage tank shall be equipped with an internal floating roof.
- 2.b The automatic bleeder vents shall be closed at all times except when the roof is floated off or landed on the roof leg supports, and the rim vents, if provided, shall be set to open when the roof is being floated off the roof leg supports or is at the manufacturer's recommended setting.
- 2.c All openings, except stub drains, shall be equipped with a cover, seal or lid which is to be in a closed position at all times except when in actual use for tank gauging or sampling.

II. Operational Restrictions

1. The tank shall be loaded by means of a submerged fill pipe, defined as any fill pipe with the discharge opening entirely submerged when the liquid level is six inches above the bottom of the tank or when loaded from the side, any fill pipe with the discharge opening entirely submerged when the liquid level is eighteen inches above the bottom of the tank, OAC rule 3745-21-

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DPL Energy LLC Greenville Electric Gener
DTI Application: 08 04080

Facility ID: 0819070237

Emissions Unit ID: T001

01(C)(6).

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III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain records of the following information.
 - a. The types of petroleum liquids stored in the tank.
 - b. The maximum true vapor pressure (in pounds per square inch absolute), as stored, of each liquid that has a maximum true vapor pressure greater than 1.0 pound per square inch absolute.
2. The permittee shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel for the life of the source.
3. The permittee shall perform annual inspections of the gray paint finish of the storage tank and make repairs when necessary, to maintain the gray tank finish in good condition.
4. The permittee shall maintain monthly records of the No. 2 fuel oil throughput, in gallons.

IV. Reporting Requirements

1. If the permittee places, stores, or holds in the fixed roof tank any petroleum liquid with a true vapor pressure which is greater than 1.52 pounds per square inch absolute, and such tank does not comply with the requirements of paragraph (L)(1) of OAC rule 3745-21-09, the permittee shall notify the Director (the appropriate Ohio EPA District Office or local air agency) within 30 days of becoming aware of the occurrence.

V. Testing Requirements

1. Compliance with the emission limitations specified in A.I.1. of these terms and conditions shall be determined in accordance with the following method(s):

- a. Emission Limitation -

0.01 TPY VOC

Applicable Compliance Method -

Compliance shall be demonstrated based upon the record keeping requirements specified in section A.III.4 and the formulas provided in AP-42 Chapter 7, Organic Liquid Storage Tanks, section 7.1.3.1, Total Losses from Fixed Roof Tanks (9/1997) or the "TANKS

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3.1" software program.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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>
T001 - 400,000 gallon No. 2 fuel oil internal floating roof storage tank		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None