



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL CERTIFIED MAIL  
PICKAWAY COUNTY**

Street Address:

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

Mailing Address:  
Lazarus Gov.  
Center

**Application No: 01-08718**

**DATE: 7/1/2003**

Darby Electric Generating Station  
Mandy Goubeaux  
1065 Woodman Drive  
Dayton, OH 45432

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$1200** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

*Michael W. Ahern*

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

CC: USEPA

CDO

KY

**PICKAWAY  
COUNTY**

PUBLIC NOTICE

ISSUANCE OF DRAFT PERMIT TO INSTALL **01-08718** FOR AN AIR CONTAMINANT SOURCE FOR

## **DARBY ELECTRIC GENERATING STATION**

On 7/1/2003 the Director of the Ohio Environmental Protection Agency issued a draft action of a Permit To Install an air contaminant source for **Darby Electric Generating Station**, located at **Adkins Rd, Mt. Sterling, Ohio**.

Installation of the air contaminant source identified below may proceed upon final issuance of Permit To Install 01-08718:

### **Combustion Turbines P001 through P006.**

Comments concerning this draft action, or a request for a public meeting, must be sent in writing to the address identified below no later than thirty (30) days from the date this notice is published. All inquiries concerning this draft action may be directed to the contact identified below.

Isaac Robinson, Ohio EPA, Central District Office, 3232 Alum Creek Drive, Columbus, OH 43207-3417  
[(614)728-3778]



**Permit To Install  
Terms and Conditions**

**Issue Date: To be entered upon final issuance  
Effective Date: To be entered upon final issuance**

**DRAFT PERMIT TO INSTALL 01-08718**

Application Number: 01-08718  
APS Premise Number: 0165000132  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: Darby Electric Generating Station  
Person to Contact: Mandy Goubeaux  
Address: 1065 Woodman Drive  
Dayton, OH 45432

Location of proposed air contaminant source(s) [emissions unit(s)]:  
**Adkins Rd  
Mt. Sterling, Ohio**

Description of proposed emissions unit(s):  
**Combustion Turbines P001 through P006.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

Darby Electric Generating Station

Facility ID: 0165000132

PTI Application: 01-08718

Issued: To be entered upon final issuance

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.

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- 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

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**Facility ID: 0165000132**

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not be met, and any preventive or corrective measures adopted.

**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 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.

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**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**

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

**8. Construction Compliance Certification**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) 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**

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**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>
PE	15.8
SO <sub>2</sub>	11.7
OC	30.4
NOX	245.0
CO	199.4

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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, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.

**B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions**

None

Darby  
PTI A

Emissions Unit ID: P001

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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)
P001- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT1 - Combustion Turbine No. 1.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

Darby  
PTI A

Emissions Unit ID: P001

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OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG  
OAC rule 3745-23-06(B)

Applicable Emissions  
Limitations/Control Measures

245 tons per year (TPY) nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

11.7 TPY sulfur dioxide (SO2) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

6.1 TPY volatile organic compounds (VOC)\* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

See Sections A.I.2.a, A.II.6, A.III.2, A.III.3, A.III.7, and A.IV.3 for the specific operational restrictions, monitoring and/or record keeping requirements and reporting requirements, respectively.

0.040 lb of particulate emissions/mmBtu actual heat input.

NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NOx continuous emission monitoring system (CEMs). Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the

**Darby Electric Generating Station**

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**Issued**

Emissions Unit ID: P001

averaging period.	emissions when firing number two fuel oil.	emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel oil, based on a one-hour average as determined through data from the NOx CEMs. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	2.0 lbs/hour of VOC* emissions when firing natural gas. 5.5 lbs/hour of VOC* emissions when firing number two fuel oil. 10.0 lbs/hour of OC emissions when firing natural gas. 11.0 lbs/hour of OC emissions when firing number two fuel oil.	
245 TPY of NOx emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006. 5.0 lbs/hour of particulate emissions when firing natural gas.	
CO emissions shall not exceed 301.0 lbs/hour when firing natural gas.	10.0 lbs/hour of particulate emissions when firing number two fuel oil.	
CO emissions shall not exceed 1093 lbs/hour when firing number two fuel oil.	15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006. Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.	
0.06 lb of SO2 emissions/mmBtu actual heat input	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(4).	
The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).	
2.0 lb/hour of SO2 emissions when firing natural gas.		
61.0 lbs/hour of SO2	* the permittee has submitted	

**Issued: To be entered upon final issuance****2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NO<sub>x</sub> combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NO<sub>x</sub> allowable.
- 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 fired in each turbine, the permittee shall install and operate NO<sub>x</sub> 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 NO<sub>x</sub> from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

**II. Operational Restrictions**

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NO<sub>x</sub> emission rates specified in the following table:

Month	Cumulative Summation of the NO <sub>x</sub> emission rate (TPY)
1	82
1 - 2	163

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Emissions Unit ID: P001

1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the NOx emissions for these emissions units.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	Cumulative Summation of the CO emission rate (TPY)
1	66
1 - 2	132
1 - 3	199.4
1 - 4	199.4
1 - 5	199.4
1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of CO emissions for these emissions units.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	Cumulative Summation of the SO2 emission rate (TPY)
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**Darby  
PTI A**

Emissions Unit ID: P001

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1	2.34
1 - 2	4.68
1 - 3	7.02
1 - 4	9.36
1 - 5	11.7
1 - 6	11.7
1 - 7	11.7
1 - 8	11.7
1 - 9	11.7
1 - 10	11.7
1 - 11	11.7
1 - 12	11.7

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of SO<sub>2</sub> emissions for these emissions units..

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	Cumulative Summation of the VOC emission rate (TPY)
1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of VOC emissions for these emissions units..

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 5084\*\* while burning natural gas and 300\*\* 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 P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours While	Maximum Allowable Cumulative Operating Hours While
	Burning Natural Gas**	Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	5084	300
1 - 4	5084	300
1 - 5	5084	300
1 - 6	5084	300
1 - 7	5084	300
1 - 8	5084	300
1 - 9	5084	300
1 - 10	5084	300
1 - 11	5084	300
1 - 12	5084	300

\*\* the permittee may combust 3.34 additional hours of natural gas for every hour fuel oil not combusted, up to 6086 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours for these emissions units.

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

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 sulfur content; and ASTM method D240 for heat content. The newest or

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most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

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

### **III. Monitoring and/or Recordkeeping 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 P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
  - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
  - e. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning natural gas.
  - f. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning number two fuel oil.
  - g. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning natural gas.
  - h. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning number two fuel oil.
  - i. The summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - j. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative NO<sub>x</sub> emissions for each calendar month.

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- k. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the NOx emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- l. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- m. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative CO emissions for each calendar month.
- n. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- o. The summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- p. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative SO2 emissions for each calendar month.
- q. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- r. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- s. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative VOC emissions for each calendar month.
- t. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

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- u. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - v. The summation of the particulate emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons..
2. The permittee shall monitor the sulfur content of the number two fuel oil being fired in the emissions unit. The frequency of monitoring shall be determined as follows:
- a. If the emissions unit is supplied number two fuel oil from a bulk storage tank, the values shall be determined on each occasion that number two fuel oil is transferred to the storage tank from any other source.
  - b. If the emissions unit is supplied its number two fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. Continuous NO<sub>x</sub> Monitoring
- a. Prior to the installation of the continuous NO<sub>x</sub> 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, unless an extension is granted by Ohio EPA. Personnel from the Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NO<sub>x</sub> 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

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record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

- d. The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- e. 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<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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4. Continuous CO 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 Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
  - d. 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 (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. 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. 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.
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

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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 April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
  - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 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<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.
  - c. For the first 12 calendar months of operation following start-up of these emissions units, all exceedances of the maximum allowable cumulative operating hours levels.
3. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month operating hours limitation.

These reports shall be submitted in accordance with Section A.1.c.ii of the General Terms and Conditions of this permit.

4. 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. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
  - a. The total quantity of oil received in each shipment (gallons).
  - b. The weighted\* average sulfur content (percent by weight) for the oil received during each calendar month.
  - c. The weighted\* average heat content (Btu/gallon) of the oil received during each calendar month.
  - d. The weighted\* average SO<sub>2</sub> emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO<sub>2</sub> emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

\* In proportion to the quantity of oil received in each shipment during each calendar month.

5. Continuous NO<sub>x</sub> Emissions Monitoring
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
  - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting

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period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emissions Monitoring
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office 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 any applicable limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office 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 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or 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.
7. 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,

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- 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 1049  
Columbus, Ohio 43216-1049

and

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Ohio EPA Central District Office  
3232 Alum Creek Drive  
Columbus, OH 43207

8. 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.
9. The permittee shall submit annual reports which specify the total NO<sub>x</sub>, CO, particulate, SO<sub>2</sub>, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
10. The permittee shall also submit annual reports that specify the total particulate, NO<sub>x</sub> and OC emissions for emissions units P001, P002, P003, P004, P005 and P006 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

**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-  
245 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

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

- b. Emission Limitation-  
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

The monthly CO emissions shall be added to the total CO emissions from the previous

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eleven months to determine the rolling, 12-month summation of CO emissions.

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- c. Emission Limitation-  
11.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input for these emissions units (mmBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (mmBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

- d. Emission Limitation-  
6.09 TPY VOC\*\*\* as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The VOC emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the operating

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hours while burning natural gas for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.

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- ii. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.
  - iii. The monthly VOC\*\*\* emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the operating hour data from Section A.III.1 and the average emission rates derived from the emission tests conducted in accordance with Section A.V.2.
- e. Emission Limitation-  
Sulfur content of the number two fuel 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).
- g. Emission Limitation-  
NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- Applicable Compliance Method-

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Compliance with the NO<sub>x</sub> emission and concentration limitations may be based upon the data from the NO<sub>x</sub> continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- h. Emission Limitation-  
301 lbs CO/hour, when firing natural gas  
1093 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method-

Compliance with the CO emission limitation may be based upon the data from the CO continuous emission monitoring system, and the fuel flow monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- i. Emission Limitation-  
0.06 lb SO<sub>2</sub>/MMBtu actual heat input

Applicable Compliance Method-

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM methods 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 (4/00).

- j. Emission Limitation-  
2.0 lb/hour SO<sub>2</sub>, when firing natural gas.  
61.0 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

Applicable Compliance Method-

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

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(s) SO<sub>2</sub>/MMBtu by the maximum heat input

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capacity of this emissions unit. If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

- k. Emission Limitation-  
2.0 lbs/hour VOC, when firing natural gas.  
5.5 lbs/hour VOC\*\*\*, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be determined through emission tests performed in accordance with the requirements specified in Section A.V.2.

- l. Emission Limitation-  
10.0 lbs/hour OC, when firing natural gas.  
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements specified in Section 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 18 and/or Method 25 and 25A, as appropriate.

- m. Emission Limitation-  
30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

Compliance shall be based upon record keeping as specified in Section A.III.1. and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.

- n. Emission Limitation-  
5.0 lbs/hour particulate emissions, when firing natural gas.  
10.0 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A,

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Methods 1 through 5.

- o. Emission Limitation-  
15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

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

- p. Emission Limitation-  
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\*\*\* limitations.

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

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable VOC emission limitations:

40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.

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, unless otherwise specified or approved by the Ohio EPA Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. The "Intent to Test"

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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 Central District Office's refusal to accept the results of the emission test(s).

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

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 Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

**VI. Miscellaneous Requirements**

None

**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>
P001-Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT1-Combustion 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**

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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

- 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)
P002- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT2 - Combustion Turbine No. 2.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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	<p style="text-align: center;"><u>Applicable Emissions Limitations/Control Measures</u></p>
<p>OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG OAC rule 3745-23-06(B)</p>	<p>245 tons per year (TPY) nitrogen oxides (NO<sub>x</sub>) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>11.7 TPY sulfur dioxide (SO<sub>2</sub>) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>6.1 TPY volatile organic compounds (VOC)* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>See Sections A.I.2.a, A.II.6, A.III.2, A.III.3, A.III.7, and A.IV.3 for the specific operational restrictions, monitoring and/or record keeping requirements and reporting requirements, respectively.</p> <p>0.040 lb of particulate emissions/mmBtu actual heat input.</p> <p>NO<sub>x</sub> emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NO<sub>x</sub> continuous emission monitoring system (CEMs). Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the</p>

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<p>averaging period.</p>	<p>2.0 lbs/hour of SO<sub>2</sub> emissions when firing natural gas.</p>	<p>The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule</p>
<p>NO<sub>x</sub> emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel oil, based on a one-hour average as determined through data from the NO<sub>x</sub> CEMs.</p>	<p>61.0 lbs/hour of SO<sub>2</sub> emissions when firing number two fuel oil.</p>	<p>3745-31-05(A)(3) and 3745-31-05(D).</p>
<p>Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.</p>	<p>2.0 lbs/hour of VOC* emissions when firing natural gas. 5.5 lbs/hour of VOC* emissions when firing number two fuel oil.</p>	<p>* the permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.</p>
<p>245 TPY of NO<sub>x</sub> emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	<p>10.0 lbs/hour of OC emissions when firing natural gas. 11.0 lbs/hour of OC emissions when firing number two fuel oil.</p>	
<p>CO emissions shall not exceed 301 lbs/hour when firing natural gas.</p>	<p>30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	
<p>CO emissions shall not exceed 1093 lbs/hour when firing number two fuel oil.</p>	<p>5.0 lbs/hour of particulate emissions when firing natural gas. 10.0 lbs/hour of particulate emissions when firing number two fuel oil.</p>	
<p>0.06 lb of SO<sub>2</sub> emissions/mmBtu actual heat input.</p>	<p>15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	
<p>The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.</p>	<p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p>	
<p></p>	<p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(4).</p>	

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 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 fired 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 the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

**II. Operational Restrictions**

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Month	Cumulative Summation of the NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245

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1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the NOx emissions for these emissions units.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	Cumulative Summation of the CO emission rate (TPY)
1	66
1 - 2	132
1 - 3	199.4
1 - 4	199.4
1 - 5	199.4
1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of CO emissions for these emissions units.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	Cumulative Summation of the SO2 emission rate (TPY)
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1	2.34
1 - 2	4.68
1 - 3	7.02
1 - 4	9.36
1 - 5	11.7
1 - 6	11.7
1 - 7	11.7
1 - 8	11.7
1 - 9	11.7
1 - 10	11.7
1 - 11	11.7
1 - 12	11.7

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of SO2 emissions for these emissions units..

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	Cumulative Summation of the VOC emission rate (TPY)
1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of VOC emissions for these emissions units..

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 5084\*\* while burning natural gas and 300\*\* 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

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emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours While	Maximum Allowable Cumulative Operating Hours While
	Burning Natural Gas**	Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	5084	300
1 - 4	5084	300
1 - 5	5084	300
1 - 6	5084	300
1 - 7	5084	300
1 - 8	5084	300
1 - 9	5084	300
1 - 10	5084	300
1 - 11	5084	300
1 - 12	5084	300

\*\* the permittee may combust 3.34 additional hours of natural gas for every hour fuel oil not combusted, up to 6086 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours for these emissions units.

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

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

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

**III. Monitoring and/or Recordkeeping 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 P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
  - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
  - e. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning natural gas.
  - f. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning number two fuel oil.
  - g. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning natural gas.
  - h. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning number two fuel oil.
  - i. The summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - j. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative NO<sub>x</sub> emissions for each calendar month.
  - k. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

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- l. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- m. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative CO emissions for each calendar month.
- n. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- o. The summation of the SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- p. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative SO<sub>2</sub> emissions for each calendar month.
- q. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- r. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- s. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative VOC emissions for each calendar month.
- t. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- u. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- v. The summation of the particulate emissions for emissions units P001, P002, P003, P004,

P005, and P006 combined, in tons..

2. The permittee shall monitor the sulfur content of the number two fuel oil being fired in the emissions unit. The frequency of monitoring shall be determined as follows:
  - a. If the emissions unit is supplied number two fuel oil from a bulk storage tank, the values shall be determined on each occasion that number two fuel oil is transferred to the storage tank from any other source.
  - b. If the emissions unit is supplied its number two fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. Continuous NOx 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, unless an extension is granted by Ohio EPA. Personnel from the Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
  - d. The permittee shall maintain records of all data obtained by the continuous NOx

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monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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

**4. Continuous CO 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 Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
- d. The permittee shall maintain records of all data obtained by the continuous CO monitoring

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system including, but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

- e. 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. 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.
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 April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
  - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 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<sub>x</sub>, CO, SO<sub>2</sub>, and VOC

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emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.

- c. For the first 12 calendar months of operation following start-up of these emissions units, all exceedances of the maximum allowable cumulative operating hours levels.
3. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month operating hours limitation.

These reports shall be submitted in accordance with Section A.1.c.ii of the General Terms and Conditions of this permit.

4. 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. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
  - a. The total quantity of oil received in each shipment (gallons).
  - b. The weighted\* average sulfur content (percent by weight) for the oil received during each calendar month.
  - c. The weighted\* average heat content (Btu/gallon) of the oil received during each calendar month.
  - d. The weighted\* average SO<sub>2</sub> emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO<sub>2</sub> emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

\* In proportion to the quantity of oil received in each shipment during each calendar month.

5. Continuous NO<sub>x</sub> Emissions Monitoring
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO<sub>x</sub>

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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 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

**6. Continuous CO Emissions Monitoring**

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office 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 any applicable limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office 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 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of

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emissions unit, control equipment, and/or 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.

7. 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 1049  
Columbus, Ohio 43216-1049

and

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Ohio EPA Central District Office  
3232 Alum Creek Drive  
Columbus, OH 43207

8. 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.
9. The permittee shall submit annual reports which specify the total NO<sub>x</sub>, CO, particulate, SO<sub>2</sub>, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
10. The permittee shall also submit annual reports that specify the total particulate, NO<sub>x</sub> and OC emissions for emissions units P001, P002, P003, P004, P005 and P006 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

**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-  
245 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

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

- b. Emission Limitation-  
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

The monthly CO emissions shall be added to the total CO emissions from the previous

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eleven months to determine the rolling, 12-month summation of CO emissions.

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- c. Emission Limitation-  
11.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input for these emissions units (mmBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (mmBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

- d. Emission Limitation-  
6.09 TPY VOC\*\*\* as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the

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operating hours while burning natural gas for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.

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- ii. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.
  - iii. The monthly VOC\*\*\* emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the operating hour data from Section A.III.1 and the average emission rates derived from the emission tests conducted in accordance with Section A.V.2.
- e. Emission Limitation-  
Sulfur content of the number two fuel 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).
- g. Emission Limitation-  
NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- Applicable Compliance Method-

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Compliance with the NO<sub>x</sub> emission and concentration limitations may be based upon the data from the NO<sub>x</sub> continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- h. Emission Limitation-  
301 lbs CO/hour, when firing natural gas  
1093 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method-

Compliance with the CO emission limitation may be based upon the data from the CO continuous emission monitoring system, and the fuel flow monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- i. Emission Limitation-  
0.06 lb SO<sub>2</sub>/MMBtu actual heat input

Applicable Compliance Method-

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method 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 (4/00).

- j. Emission Limitation-  
2.0 lb/hour SO<sub>2</sub>, when firing natural gas.  
61.0 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

Applicable Compliance Method-

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

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(s) SO<sub>2</sub>/MMBtu by the maximum heat input

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capacity of this emissions unit. If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

- k. Emission Limitation-  
2.0 lbs/hour VOC, when firing natural gas.  
5.5 lbs/hour VOC\*\*\*, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be determined through emission tests performed in accordance with the requirements specified in Section A.V.2.

- l. Emission Limitation-  
10.0 lbs/hour OC, when firing natural gas.  
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements specified in Section 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 18 and/or Method 25 and 25A, as appropriate.

- m. Emission Limitation-  
30.43 TPY OC combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

Compliance shall be based upon record keeping as specified in Section A.III.1. and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.

- n. Emission Limitation-  
5.0 lbs/hour particulate emissions, when firing natural gas.  
10.0 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

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- o. Emission Limitation-  
15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

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Applicable Compliance Method-

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

- p. Emission Limitation-  
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\*\*\* limitations.  
  
\*\*\*the permittee has requested that if the average emissions rate (lbs/hour) derived from the emission test conducted in accordance with this term is less than the permit VOC allowable listed in term Section A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable VOC emission limitations:  
  
40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.  
  
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, unless otherwise specified or approved by the Ohio EPA Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating

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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 Central District Office's refusal to accept the results of the emission test(s).

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

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 Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

**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>	<u>Applicable Emissions Limitations/Control Measures</u>
P002- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT2 - Combustion 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

**V. Testing Requirements**

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None

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**VI. Miscellaneous Requirements**

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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)
P003- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT3 - Combustion Turbine No. 3.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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	<p style="text-align: center;"><u>Applicable Emissions Limitations/Control Measures</u></p>
<p>OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG OAC rule 3745-23-06(B)</p>	<p>245 tons per year (TPY) nitrogen oxides (NO<sub>x</sub>) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>11.7 TPY sulfur dioxide (SO<sub>2</sub>) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>6.1 TPY volatile organic compounds (VOC)* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>See Sections A.I.2.a, A.II.6, A.III.2, A.III.3, A.III.7, and A.IV.3 for the specific operational restrictions, monitoring and/or record keeping requirements and reporting requirements, respectively.</p> <p>0.040 lb of particulate emissions/mmBtu actual heat input.</p> <p>NO<sub>x</sub> emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NO<sub>x</sub> continuous emission monitoring system (CEMs). Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the</p>

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averaging period.	2.0 lbs/hour of SO <sub>2</sub> emissions when firing natural gas.	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).  * the permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
NO <sub>x</sub> emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel oil, based on a one-hour average as determined through data from the NO <sub>x</sub> CEMs. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	61.0 lbs/hour of SO <sub>2</sub> emissions when firing number two fuel oil.	
	2.0 lbs/hour of VOC* emissions when firing natural gas.	
	5.5 lbs/hour of VOC* emissions when firing number two fuel oil.	
	10.0 lbs/hour of OC emissions when firing natural gas.	
	11.0 lbs/hour of OC emissions when firing number two fuel oil.	
245 TPY of NO <sub>x</sub> emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
CO emissions shall not exceed 301 lbs/hour when firing natural gas.	5.0 lbs/hour of particulate emissions when firing natural gas.	
	10.0 lbs/hour of particulate emissions when firing number two fuel oil.	
CO emissions shall not exceed 1093 lbs/hour when firing number two fuel oil.	15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
0.06 lb of SO <sub>2</sub> emissions/mmBtu actual heat input.	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.	
The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(4).	

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 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 fired 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 the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

**II. Operational Restrictions**

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Month	Cumulative Summation of the NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245

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1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the NOx emissions for these emissions units.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	Cumulative Summation of the CO emission rate (TPY)
1	66
1 - 2	132
1 - 3	199.4
1 - 4	199.4
1 - 5	199.4
1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of CO emissions for these emissions units.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	Cumulative Summation of the SO2 emission rate (TPY)
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1	2.34
1 - 2	4.68
1 - 3	7.02
1 - 4	9.36
1 - 5	11.7
1 - 6	11.7
1 - 7	11.7
1 - 8	11.7
1 - 9	11.7
1 - 10	11.7
1 - 11	11.7
1 - 12	11.7

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of SO2 emissions for these emissions units..

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	Cumulative Summation of the VOC emission rate (TPY)
1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of VOC emissions for these emissions units..

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 5084\*\* while burning natural gas and 300\*\* 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

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emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours While	Maximum Allowable Cumulative Operating Hours While
	Burning Natural Gas**	Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	5084	300
1 - 4	5084	300
1 - 5	5084	300
1 - 6	5084	300
1 - 7	5084	300
1 - 8	5084	300
1 - 9	5084	300
1 - 10	5084	300
1 - 11	5084	300
1 - 12	5084	300

\*\* the permittee may combust 3.34 additional hours of natural gas for every hour fuel oil not combusted, up to 6086 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours for these emissions units.

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

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

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

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unit.

### III. Monitoring and/or Recordkeeping 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 P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
  - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
  - e. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning natural gas.
  - f. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning number two fuel oil.
  - g. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning natural gas.
  - h. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning number two fuel oil.
  - i. The summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - j. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative NO<sub>x</sub> emissions for each

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calendar month.

- k. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the NOx emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- l. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- m. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative CO emissions for each calendar month.
- n. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- o. The summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- p. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative SO2 emissions for each calendar month.
- q. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- r. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- s. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative VOC emissions for each calendar month.
- t. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- u. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

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- v. The summation of the particulate emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons..
2. The permittee shall monitor the sulfur content of the number two fuel oil being fired in the emissions unit. The frequency of monitoring shall be determined as follows:
  - a. If the emissions unit is supplied number two fuel oil from a bulk storage tank, the values shall be determined on each occasion that number two fuel oil is transferred to the storage tank from any other source.
  - b. If the emissions unit is supplied its number two fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
  - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
3. Continuous NO<sub>x</sub> Monitoring
  - a. Prior to the installation of the continuous NO<sub>x</sub> 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, unless an extension is granted by Ohio EPA. Personnel from the Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NO<sub>x</sub> 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.

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- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
  - d. The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. 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<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO 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 Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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- d. 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 (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. 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. 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.
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 April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
  - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 combined.
  - b. Beginning after the first twelve calendar months of operation following startup of these

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emissions units, the rolling, 12-month summation of the NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.

- c. For the first 12 calendar months of operation following start-up of these emissions units, all exceedances of the maximum allowable cumulative operating hours levels.
3. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month operating hours limitation.

These reports shall be submitted in accordance with Section A.1.c.ii of the General Terms and Conditions of this permit.

4. 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. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
  - a. The total quantity of oil received in each shipment (gallons).
  - b. The weighted\* average sulfur content (percent by weight) for the oil received during each calendar month.
  - c. The weighted\* average heat content (Btu/gallon) of the oil received during each calendar month.
  - d. The weighted\* average SO<sub>2</sub> emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO<sub>2</sub> emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

\* In proportion to the quantity of oil received in each shipment during each calendar month.

5. Continuous NO<sub>x</sub> Emissions Monitoring
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit (178.5

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lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

#### 6. Continuous CO Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office 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 any applicable limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office 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 emissions during the calendar quarter, the permittee shall submit a

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statement to that effect along with 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, control equipment, and/or 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.

7. 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 1049  
Columbus, Ohio 43216-1049

and

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Ohio EPA Central District Office  
3232 Alum Creek Drive  
Columbus, OH 43207

8. 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.
9. The permittee shall submit annual reports which specify the total NO<sub>x</sub>, CO, particulate, SO<sub>2</sub>, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
10. The permittee shall also submit annual reports that specify the total particulate, NO<sub>x</sub> and OC emissions for emissions units P001, P002, P003, P004, P005 and P006 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

**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-  
245 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

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

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

- b. Emission Limitation-  
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

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

The monthly CO emissions shall be added to the total CO emissions from the previous

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eleven months to determine the rolling, 12-month summation of CO emissions.

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- c. Emission Limitation-  
11.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input for these emissions units (mmBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (mmBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

- d. Emission Limitation-  
6.09 TPY VOC\*\*\* as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the

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operating hours while burning natural gas for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.

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- ii. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2, and dividing by 2,000 lbs/ton.
  - iii. The monthly VOC\*\*\* emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the operating hour data from Section A.III.1 and the average emission rates derived from the emission tests conducted in accordance with Section A.V.2.
- e. Emission Limitation-  
Sulfur content of the number two fuel 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).
- g. Emission Limitation-  
NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- Applicable Compliance Method-

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Compliance with the NO<sub>x</sub> emission and concentration limitations may be based upon the data from the NO<sub>x</sub> continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- h. Emission Limitation-  
301 lbs CO/hour, when firing natural gas  
1093 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method-

Compliance with the CO emission limitation may be based upon the data from the CO continuous emission monitoring system, and the fuel flow monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- i. Emission Limitation-  
0.06 lb SO<sub>2</sub>/MMBtu actual heat input

Applicable Compliance Method-

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method 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 (4/00).

- j. Emission Limitation-  
2.0 lb/hour SO<sub>2</sub>, when firing natural gas.  
61.0 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

Applicable Compliance Method-

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

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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 A.II.6. and A.III.2. and shall be determined by multiplying the sulfur dioxide emissions in lb(s) SO<sub>2</sub>/MMBtu by the maximum heat input capacity of this emissions unit. If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

- k. Emission Limitation-  
2.0 lbs/hour VOC, when firing natural gas.  
5.5 lbs/hour VOC\*\*\*, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be determined through emission tests performed in accordance with the requirements specified in Section A.V.2.

- l. Emission Limitation-  
10.0 lbs/hour OC, when firing natural gas.  
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements specified in Section 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 18 and/or Method 25 and 25A, as appropriate.

- m. Emission Limitation-  
30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

Compliance shall be based upon record keeping as specified in Section A.III.1. and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.

- n. Emission Limitation-  
5.0 lbs/hour particulate emissions, when firing natural gas.  
10.0 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A,

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Methods 1 through 5.

- o. Emission Limitation-  
15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

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

- p. Emission Limitation-  
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\*\*\* limitations.

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

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable VOC emission limitations:

40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.

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, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

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

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 Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

## **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>
P003- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT2 - Combustion 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

**V. Testing Requirements**

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None

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**VI. Miscellaneous Requirements**

Emissions Unit ID: P003

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)
P004- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT4 - Combustion Turbine No. 4.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions  
Limitations/Control Measures

OAC rule 3745-17-07(A)  
 OAC rule 3745-18-06(F)  
 40 CFR Part 60, Subpart GG  
 OAC rule 3745-23-06(B)

245 tons per year (TPY) nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

11.7 TPY sulfur dioxide (SO<sub>2</sub>) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

6.1 TPY volatile organic compounds (VOC)\* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

See Sections A.I.2.a, A.II.6, A.III.2, A.III.3, A.III.7, and A.IV.3 for the specific operational restrictions, monitoring and/or record keeping requirements and reporting requirements, respectively.

0.040 lb of particulate emissions/mmBtu actual heat input.

NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NOx continuous emission monitoring system (CEMs). Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.

NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing

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number two fuel oil, based on a one-hour average as determined through data from the NOx CEMs.	2.0 lbs/hour of VOC* emissions when firing natural gas.	3745-31-05(D).
Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	5.5 lbs/hour of VOC* emissions when firing number two fuel oil.	* the permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.
245 TPY of NOx emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	10.0 lbs/hour of OC emissions when firing natural gas.	
CO emissions shall not exceed 301 lbs/hour when firing natural gas.	11.0 lbs/hour of OC emissions when firing number two fuel oil.	
CO emissions shall not exceed 1093 lbs/hour when firing number two fuel oil.	30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
0.06 lb of SO2 emissions/mmBtu actual heat input.	5.0 lbs/hour of particulate emissions when firing natural gas.	
The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.	10.0 lbs/hour of particulate emissions when firing number two fuel oil.	
2.0 lbs/hour of SO2 emissions when firing natural gas.	15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.	
61.0 lbs/hour of SO2 emissions when firing number two fuel oil.	Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.	
	The requirements of this rule also include compliance with the requirements of OAC rule 3745-17-11(B)(4).	
	The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and	

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- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NO<sub>x</sub> combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NO<sub>x</sub> allowable.
- 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 fired in each turbine, the permittee shall install and operate NO<sub>x</sub> 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 NO<sub>x</sub> from this emissions unit.
- 2.d** In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

**II. Operational Restrictions**

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NO<sub>x</sub> emission rates specified in the following table:

Month	Cumulative Summation of the NO <sub>x</sub> emission rate (TPY)
1	82
1 - 2	163

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1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the NOx emissions for these emissions units.

2. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	Cumulative Summation of the CO emission rate (TPY)
1	66
1 - 2	132
1 - 3	199.4
1 - 4	199.4
1 - 5	199.4
1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of CO emissions for these emissions units.

3. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	Cumulative Summation of the SO2 emission rate (TPY)
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1	2.34
1 - 2	4.68
1 - 3	7.02
1 - 4	9.36
1 - 5	11.7
1 - 6	11.7
1 - 7	11.7
1 - 8	11.7
1 - 9	11.7
1 - 10	11.7
1 - 11	11.7
1 - 12	11.7

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of SO<sub>2</sub> emissions for these emissions units..

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	Cumulative Summation of the VOC emission rate (TPY)
1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of VOC emissions for these emissions units..

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 5084\*\* while burning natural gas and 300\*\* 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 P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable	Maximum Allowable
	Cumulative Operating Hours While Burning Natural Gas**	Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	5084	300
1 - 4	5084	300
1 - 5	5084	300
1 - 6	5084	300
1 - 7	5084	300
1 - 8	5084	300
1 - 9	5084	300
1 - 10	5084	300
1 - 11	5084	300
1 - 12	5084	300

\*\* the permittee may combust 3.34 additional hours of natural gas for every hour fuel oil not combusted, up to 6086 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours for these emissions units.

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

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

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

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unit.

### **III. Monitoring and/or Recordkeeping 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 P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
  - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
  - e. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning natural gas.
  - f. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning number two fuel oil.
  - g. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning natural gas.
  - h. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning number two fuel oil.
  - i. The summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - j. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative NO<sub>x</sub> emissions for each

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calendar month.

- k. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the NOx emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- l. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- m. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative CO emissions for each calendar month.
- n. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- o. The summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- p. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative SO2 emissions for each calendar month.
- q. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- r. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- s. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative VOC emissions for each calendar month.
- t. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- u. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

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- v. The summation of the particulate emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons..
2. The permittee shall monitor the sulfur content of the number two fuel oil being fired in the emissions unit. The frequency of monitoring shall be determined as follows:
    - a. If the emissions unit is supplied number two fuel oil from a bulk storage tank, the values shall be determined on each occasion that number two fuel oil is transferred to the storage tank from any other source.
    - b. If the emissions unit is supplied its number two fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
    - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
  3. Continuous NO<sub>x</sub> Monitoring
    - a. Prior to the installation of the continuous NO<sub>x</sub> 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, unless an extension is granted by Ohio EPA. Personnel from the Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NO<sub>x</sub> 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.

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- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
- d. The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- e. 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<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub> emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

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4. Continuous CO 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 Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
  - d. 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 (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. 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. 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.
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

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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 April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
  - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 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<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.
  - c. For the first 12 calendar months of operation following start-up of these emissions units, all exceedances of the maximum allowable cumulative operating hours levels.
3. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month operating hours limitation.

These reports shall be submitted in accordance with Section A.1.c.ii of the General Terms and Conditions of this permit.

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4. 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. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
  - a. The total quantity of oil received in each shipment (gallons).
  - b. The weighted\* average sulfur content (percent by weight) for the oil received during each calendar month.
  - c. The weighted\* average heat content (Btu/gallon) of the oil received during each calendar month.
  - d. The weighted\* average SO<sub>2</sub> emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO<sub>2</sub> emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

\* In proportion to the quantity of oil received in each shipment during each calendar month.

5. Continuous NO<sub>x</sub> Emissions Monitoring
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
  - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting

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period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emissions Monitoring
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office 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 any applicable limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
  - b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office 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 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or 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.
7. 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,

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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 1049

Columbus, Ohio 43216-1049

and

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Ohio EPA Central District Office  
3232 Alum Creek Drive  
Columbus, OH 43207

8. 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.
9. The permittee shall submit annual reports which specify the total NO<sub>x</sub>, CO, particulate, SO<sub>2</sub>, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
10. The permittee shall also submit annual reports that specify the total particulate, NO<sub>x</sub> and OC emissions for emissions units P001, P002, P003, P004, P005 and P006 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

**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-  
245 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

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

- b. Emission Limitation-  
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

The monthly CO emissions shall be added to the total CO emissions from the previous

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eleven months to determine the rolling, 12-month summation of CO emissions.

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- c. Emission Limitation-  
11.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input for these emissions units (mmBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (mmBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

- d. Emission Limitation-  
6.09 TPY VOC\*\*\* as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the

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operating hours while burning natural gas for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2, and dividing by 2,000 lbs/ton.

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- ii. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.
  - iii. The monthly VOC\*\*\* emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the operating hour data from Section A.III.1 and the average emission rates derived from the emission tests conducted in accordance with Section A.V.2.
- e. Emission Limitation-  
Sulfur content of the number two fuel 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).
- g. Emission Limitation-  
NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- Applicable Compliance Method-

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Compliance with the NO<sub>x</sub> emission and concentration limitations may be based upon the data from the NO<sub>x</sub> continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- h. Emission Limitation-  
301 lbs CO/hour, when firing natural gas  
1093 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method-

Compliance with the CO emission limitation may be based upon the data from the CO continuous emission monitoring system, and the fuel flow monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- i. Emission Limitation-  
0.06 lb SO<sub>2</sub>/MMBtu actual heat input

Applicable Compliance Method-

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method 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 (4/00).

- j. Emission Limitation-  
2.0 lb/hour SO<sub>2</sub>, when firing natural gas.  
61.0 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

Applicable Compliance Method-

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

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(s) SO<sub>2</sub>/MMBtu by the maximum heat input

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capacity of this emissions unit. If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

- k. Emission Limitation-  
2.0 lbs/hour VOC, when firing natural gas.  
5.5 lbs/hour VOC\*\*\*, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be determined through emission tests performed in accordance with the requirements specified in Section A.V.2.

- l. Emission Limitation-  
10.0 lbs/hour OC, when firing natural gas.  
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements specified in Section 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 18 and/or Method 25 and 25A, as appropriate.

- m. Emission Limitation-  
30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

Compliance shall be based upon record keeping as specified in Section A.III.1. and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.

- n. Emission Limitation-  
5.0 lbs/hour particulate emissions, when firing natural gas.  
10.0 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A,

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Methods 1 through 5.

- o. Emission Limitation-  
15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

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

- p. Emission Limitation-  
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\*\*\* limitations.

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

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable VOC emission limitations:

40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.

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, unless otherwise specified or approved by the Ohio EPA Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. The "Intent to Test"

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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 Central District Office's refusal to accept the results of the emission test(s).

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

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 Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

**VI. Miscellaneous Requirements**

None

**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>
P004- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT2 - Combustion 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

**V. Testing Requirements**

None

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**VI. Miscellaneous Requirements**

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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)
P005- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT5 - Combustion Turbine No. 5.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions  
Limitations/Control Measures

245 tons per year (TPY) nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

11.7 TPY sulfur dioxide (SO2) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

6.1 TPY volatile organic compounds (VOC)\* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

See Sections A.I.2.a, A.II.6, A.III.2, A.III.3, A.III.7, and A.IV.3 for the specific operational restrictions, monitoring and/or record keeping requirements and reporting requirements, respectively.

0.040 lb of particulate emissions/mmBtu actual heat input.

NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NOx continuous emission monitoring system (CEMs). Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG  
OAC rule 3745-23-06(B)

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<p>averaging period.</p>	<p>2.0 lbs/hour of SO2 emissions when firing natural gas.</p>	<p>3745-17-11(B)(4).</p>
<p>NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel oil, based on a one-hour average as determined through data from the NOx CEMs. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.</p>	<p>61.0 lbs/hour of SO2 emissions when firing number two fuel oil. 2.0 lbs/hour of VOC* emissions when firing natural gas. 5.5 lbs/hour of VOC* emissions when firing number two fuel oil. 10.0 lbs/hour of OC emissions when firing natural gas. 11.0 lbs/hour of OC emissions when firing number two fuel oil.</p>	<p>The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).  * the permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.</p>
<p>245 TPY of NOx emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	<p>30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	
<p>CO emissions shall not exceed 301 lbs/hour when firing natural gas.</p>	<p>5.0 lbs/hour of particulate emissions when firing natural gas.</p>	
<p>CO emissions shall not exceed 1093 lbs/hour when firing number two fuel oil.</p>	<p>10.0 lbs/hour of particulate emissions when firing number two fuel oil.</p>	
<p>0.06 lb of SO2 emissions/mmBtu actual heat input.</p>	<p>15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	
<p>The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.</p>	<p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p>	
	<p>The requirements of this rule also include compliance with the requirements of OAC rule</p>	

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 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 fired 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 the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

**II. Operational Restrictions**

1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Month	Cumulative Summation of the NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245

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1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the NOx emissions for these emissions units.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	Cumulative Summation of the CO emission rate (TPY)
1	66
1 - 2	132
1 - 3	199.4
1 - 4	199.4
1 - 5	199.4
1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of CO emissions for these emissions units.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	Cumulative Summation of the SO2 emission rate (TPY)
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1	2.34
1 - 2	4.68
1 - 3	7.02
1 - 4	9.36
1 - 5	11.7
1 - 6	11.7
1 - 7	11.7
1 - 8	11.7
1 - 9	11.7
1 - 10	11.7
1 - 11	11.7
1 - 12	11.7

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of SO<sub>2</sub> emissions for these emissions units..

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	Cumulative Summation of the VOC emission rate (TPY)
1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of VOC emissions for these emissions units..

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 5084\*\* while burning natural gas and 300\*\* 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

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emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable Cumulative Operating Hours While	Maximum Allowable Cumulative Operating Hours While
	Burning Natural Gas**	Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	5084	300
1 - 4	5084	300
1 - 5	5084	300
1 - 6	5084	300
1 - 7	5084	300
1 - 8	5084	300
1 - 9	5084	300
1 - 10	5084	300
1 - 11	5084	300
1 - 12	5084	300

\*\* the permittee may combust 3.34 additional hours of natural gas for every hour fuel oil not combusted, up to 6086 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours for these emissions units.

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

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

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

unit.

### **III. Monitoring and/or Recordkeeping 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 P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
  - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
  - e. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning natural gas.
  - f. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning number two fuel oil.
  - g. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning natural gas.
  - h. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning number two fuel oil.
  - i. The summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - j. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative NO<sub>x</sub> emissions for each calendar month.
  - k. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in

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tons.

- l. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- m. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative CO emissions for each calendar month.
- n. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- o. The summation of the SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- p. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative SO<sub>2</sub> emissions for each calendar month.
- q. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- r. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- s. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative VOC emissions for each calendar month.
- t. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- u. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

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- v. The summation of the particulate emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons..
2. The permittee shall monitor the sulfur content of the number two fuel oil being fired in the emissions unit. The frequency of monitoring shall be determined as follows:
    - a. If the emissions unit is supplied number two fuel oil from a bulk storage tank, the values shall be determined on each occasion that number two fuel oil is transferred to the storage tank from any other source.
    - b. If the emissions unit is supplied its number two fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
    - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
  3. Continuous NOx 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, unless an extension is granted by Ohio EPA. Personnel from the Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.

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- d. 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, emissions of NOx in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  
- e. 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. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 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.

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4. Continuous CO 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 Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
  - d. 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 (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. 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. 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.
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

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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 April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
  - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 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<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.
  - c. For the first 12 calendar months of operation following start-up of these emissions units, all exceedances of the maximum allowable cumulative operating hours levels.
3. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month operating hours limitation.

These reports shall be submitted in accordance with Section A.1.c.ii of the General Terms and Conditions of this permit.

4. 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. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the

copies of the permittee's or oil supplier's analyses:

- a. The total quantity of oil received in each shipment (gallons).
- b. The weighted\* average sulfur content (percent by weight) for the oil received during each calendar month.
- c. The weighted\* average heat content (Btu/gallon) of the oil received during each calendar month.
- d. The weighted\* average SO<sub>2</sub> emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO<sub>2</sub> emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

\* In proportion to the quantity of oil received in each shipment during each calendar month.

5. Continuous NO<sub>x</sub> Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or 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

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30 of each year and shall address the data obtained during the previous calendar quarter.

## 6. Continuous CO Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office 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 any applicable limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office 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 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or 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.

## 7. 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,

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- 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 1049

Columbus, Ohio 43216-1049

and

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Ohio EPA Central District Office  
3232 Alum Creek Drive  
Columbus, OH 43207

8. 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.
9. The permittee shall submit annual reports which specify the total NO<sub>x</sub>, CO, particulate, SO<sub>2</sub>, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
10. The permittee shall also submit annual reports that specify the total particulate, NO<sub>x</sub> and OC emissions for emissions units P001, P002, P003, P004, P005 and P006 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

**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-  
245 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.  
  
Applicable Compliance Method-  
Compliance shall be based upon record keeping as specified in Section A.III.1. and shall be determined through the use of CEMs as specified in Section A.III.3.  
  
The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.
  - b. Emission Limitation-  
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.  
  
Applicable Compliance Method-  
Compliance shall be based upon record keeping as specified in Section A.III.1. and shall be determined through the use of CEMs as specified in Section A.III.4.  
  
The monthly CO emissions shall be added to the total CO emissions from the previous

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eleven months to determine the rolling, 12-month summation of CO emissions.

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- c. Emission Limitation-  
11.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input for these emissions units (mmBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (mmBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

- d. Emission Limitation-  
6.09 TPY VOC\*\*\* as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the

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operating hours while burning natural gas for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.

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- ii. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.
  - iii. The monthly VOC\*\*\* emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the operating hour data from Section A.III.1 and the average emission rates derived from the emission tests conducted in accordance with Section A.V.2.
- e. Emission Limitation-  
Sulfur content of the number two fuel 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).
- g. Emission Limitation-  
NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.
- Applicable Compliance Method-

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Compliance with the NO<sub>x</sub> emission and concentration limitations may be based upon the data from the NO<sub>x</sub> continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- h. Emission Limitation-  
301 lbs CO/hour, when firing natural gas  
1093 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method-

Compliance with the CO emission limitation may be based upon the data from the CO continuous emission monitoring system, and the fuel flow monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- i. Emission Limitation-  
0.06 lb SO<sub>2</sub>/MMBtu actual heat input

Applicable Compliance Method-

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method 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 (4/00).

- j. Emission Limitation-  
2.0 lb/hour SO<sub>2</sub>, when firing natural gas.  
61.0 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

Applicable Compliance Method-

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

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(s) SO<sub>2</sub>/MMBtu by the maximum heat input

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capacity of this emissions unit. If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

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- k. Emission Limitation-  
2.0 lbs/hour VOC, when firing natural gas.  
5.5 lbs/hour VOC\*\*\*, when firing number two fuel oil.
- Applicable Compliance Method-  
Compliance shall be determined through emission tests performed in accordance with the requirements specified in Section A.V.2.
- l. Emission Limitation-  
10.0 lbs/hour OC, when firing natural gas.  
11.0 lbs/hour OC, when firing number two fuel oil.
- Applicable Compliance Method-  
Compliance shall be based upon the record keeping requirements specified in Section 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 18 and/or Method 25 and 25A, as appropriate.
- m. Emission Limitation-  
30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.
- Applicable Compliance Method-  
Compliance shall be based upon record keeping as specified in Section A.III.1. and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.
- n. Emission Limitation-  
5.0 lbs/hour particulate emissions, when firing natural gas.  
10.0 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.
- o. Emission Limitation-  
15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

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**Applicable Compliance Method-**

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

- p. **Emission Limitation-**  
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.

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

- c. The following test method(s) shall be employed to demonstrate compliance with the allowable VOC emission limitations:

40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.

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, unless otherwise specified or approved by the Ohio EPA Central District Office.

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

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

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 Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

**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>
P005- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT5 - Combustion Turbine No. 5.	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**

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None

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**VI. Miscellaneous Requirements**

Emissions Unit ID: P005

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)
P006- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT6 - Combustion Turbine No. 6.	OAC rule 3745-31-05(D)	OAC rule 3745-31-05(A)(3)
	40 CFR Part 75	

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Applicable Emissions  
Limitations/Control Measures

OAC rule 3745-17-07(A)  
OAC rule 3745-18-06(F)  
40 CFR Part 60, Subpart GG  
OAC rule 3745-23-06(B)

245 tons per year (TPY) nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

11.7 TPY sulfur dioxide (SO2) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

6.1 TPY volatile organic compounds (VOC)\* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

See Sections A.I.2.a, A.II.6, A.III.2, A.III.3, A.III.7, and A.IV.3 for the specific operational restrictions, monitoring and/or record keeping requirements and reporting requirements, respectively.

0.040 lb of particulate emissions/mmBtu actual heat input.

NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NOx continuous emission monitoring system (CEMs). Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the

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<p>averaging period.</p>	<p>2.0 lbs/hour of SO2 emissions when firing natural gas.</p>	<p>3745-17-11(B)(4).</p>
<p>NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel oil, based on a one-hour average as determined through data from the NOx CEMs. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.</p>	<p>61.0 lbs/hour of SO2 emissions when firing number two fuel oil. 2.0 lbs/hour of VOC* emissions when firing natural gas. 5.5 lbs/hour of VOC* emissions when firing number two fuel oil. 10.0 lbs/hour of OC emissions when firing natural gas. 11.0 lbs/hour of OC emissions when firing number two fuel oil.</p>	<p>The emission limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).  * the permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.</p>
<p>245 TPY of NOx emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	<p>30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	
<p>CO emissions shall not exceed 301 lbs/hour when firing natural gas.</p>	<p>5.0 lbs/hour of particulate emissions when firing natural gas.</p>	
<p>CO emissions shall not exceed 1093 lbs/hour when firing number two fuel oil.</p>	<p>10.0 lbs/hour of particulate emissions when firing number two fuel oil.</p>	
<p>0.06 lb of SO2 emissions/mmBtu actual heat input.</p>	<p>15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p>	
<p>The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.</p>	<p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p>	
	<p>The requirements of this rule also include compliance with the requirements of OAC rule</p>	

**2. Additional Terms and Conditions**

- 2.a** Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- 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 fired 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 the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
- 2.e** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
- 2.f** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.

**II. Operational Restrictions**

- 1. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

Month	Cumulative Summation of the NOx emission rate (TPY)
1	82
1 - 2	163
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245

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1 - 8	245
1 - 9	245
1 - 10	245
1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the NOx emissions for these emissions units.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

Month	Cumulative Summation of the CO emission rate (TPY)
1	66
1 - 2	132
1 - 3	199.4
1 - 4	199.4
1 - 5	199.4
1 - 6	199.4
1 - 7	199.4
1 - 8	199.4
1 - 9	199.4
1 - 10	199.4
1 - 11	199.4
1 - 12	199.4

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of CO emissions for these emissions units.

- To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

Month	Cumulative Summation of the SO2 emission rate (TPY)
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1	2.34
1 - 2	4.68
1 - 3	7.02
1 - 4	9.36
1 - 5	11.7
1 - 6	11.7
1 - 7	11.7
1 - 8	11.7
1 - 9	11.7
1 - 10	11.7
1 - 11	11.7
1 - 12	11.7

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of SO2 emissions for these emissions units.

4. To ensure enforceability during the first twelve calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

Month	Cumulative Summation of the VOC emission rate (TPY)
1	2.03
1 - 2	4.06
1 - 3	6.09
1 - 4	6.09
1 - 5	6.09
1 - 6	6.09
1 - 7	6.09
1 - 8	6.09
1 - 9	6.09
1 - 10	6.09
1 - 11	6.09
1 - 12	6.09

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of VOC emissions for these emissions units..

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005 and P006 shall not exceed 5084\*\* while burning natural gas and 300\*\* 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

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emissions units P001, P002, P003, P004, P005, and P006, the permittee shall not exceed the cumulative operating hours levels specified in the following table:

Month	Maximum Allowable	Maximum Allowable
	Cumulative Operating Hours While Burning Natural Gas**	Cumulative Operating Hours While Burning Fuel Oil No. 2**
1	847	100
1 - 2	1,695	200
1 - 3	5084	300
1 - 4	5084	300
1 - 5	5084	300
1 - 6	5084	300
1 - 7	5084	300
1 - 8	5084	300
1 - 9	5084	300
1 - 10	5084	300
1 - 11	5084	300
1 - 12	5084	300

\*\* the permittee may combust 3.34 additional hours of natural gas for every hour fuel oil not combusted, up to 6086 hours annually of natural gas combustion.

After the first 12 calendar months of operation following startup of emissions units P001, P002, P003, P004, P005, and P006 compliance with the annual operating hours limitation shall be based upon a rolling, 12-month summation of the operating hours for these emissions units.

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

Compliance with the above mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D129-00, D2622-98, D4294-02, D1266-98, D5453-00 or D1552-01 for sulfur content; and ASTM method D240 for heat content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Central District Office.

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

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unit.

### **III. Monitoring and/or Recordkeeping 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 P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
  - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
  - e. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning natural gas.
  - f. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined for each calendar month when burning number two fuel oil.
  - g. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning natural gas.
  - h. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, and P006, combined when burning number two fuel oil.
  - i. The summation of the NO<sub>x</sub> emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
  - j. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative NO<sub>x</sub> emissions for each

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calendar month.

- k. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the NOx emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- l. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- m. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative CO emissions for each calendar month.
- n. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- o. The summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- p. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative SO2 emissions for each calendar month.
- q. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the SO2 emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- r. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- s. During the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the cumulative VOC emissions for each calendar month.
- t. Following the first 12 calendar months of operation following startup of the emissions units P001, P002, P003, P004, P005, and P006, the rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- u. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

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- v. The summation of the particulate emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons..
2. The permittee shall monitor the sulfur content of the number two fuel oil being fired in the emissions unit. The frequency of monitoring shall be determined as follows:
    - a. If the emissions unit is supplied number two fuel oil from a bulk storage tank, the values shall be determined on each occasion that number two fuel oil is transferred to the storage tank from any other source.
    - b. If the emissions unit is supplied its number two fuel oil without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom fuel schedules for the determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Ohio EPA, Central Office before they can be used.
    - c. For each shipment of oil received for burning in this emissions unit, the permittee shall maintain records of the total quantity of oil received and the permittee's or oil supplier's analyses for sulfur content and heat content.
  3. Continuous NO<sub>x</sub> Monitoring
    - a. Prior to the installation of the continuous NO<sub>x</sub> 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, unless an extension is granted by Ohio EPA. Personnel from the Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District Office. Certification of the continuous NO<sub>x</sub> 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.

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- 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 and/or 40 CFR Part 75.
- d. 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, emissions of NOx in units of the applicable standard in the appropriate averaging period (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- e. 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. The plan shall follow the requirements of 40 CFR Part 60, Appendix F and/or 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.

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4. Continuous CO 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 Ohio EPA Central District Office 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 Ohio EPA Central District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Central District 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. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.
  - d. 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 (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. 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. 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.
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

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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 April 30, July 30, October 30, and January 30 and shall cover the previous calendar quarter.
2. The permittee shall submit quarterly deviation reports to the Ohio EPA Central District Office that identify any exceedances of the following:
  - a. For the first twelve months of operation following startup of these emissions units, the cumulative NO<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission rates from emissions units P001, P002, P003, P004, P005, and P006 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<sub>x</sub>, CO, SO<sub>2</sub>, and VOC emission limitations for emissions units P001, P002, P003, P004, P005, and P006 combined.
  - c. For the first 12 calendar months of operation following start-up of these emissions units, all exceedances of the maximum allowable cumulative operating hours levels.
3. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month operating hours limitation.

These reports shall be submitted in accordance with Section A.1.c.ii of the General Terms and Conditions of this permit.

4. 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. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gallon) for each shipment of oil. The following information shall also be included with the

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copies of the permittee's or oil supplier's analyses:

- a. The total quantity of oil received in each shipment (gallons).
- b. The weighted\* average sulfur content (percent by weight) for the oil received during each calendar month.
- c. The weighted\* average heat content (Btu/gallon) of the oil received during each calendar month.
- d. The weighted\* average SO<sub>2</sub> emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO<sub>2</sub> emission rate shall be calculated as specified in OAC rule 3745-18-04(F)).

\* In proportion to the quantity of oil received in each shipment during each calendar month.

**5. Continuous NO<sub>x</sub> Emissions Monitoring**

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting

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period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emissions Monitoring

- a. Pursuant to OAC rules 3745-15-04, 3745-35-02, 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 Ohio EPA Central District Office 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 any applicable limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total CO emissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office 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 emissions during the calendar quarter, the permittee shall submit a statement to that effect along with 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, control equipment, and/or 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.

7. 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,

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- 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 1049

Columbus, Ohio 43216-1049

and

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Ohio EPA Central District Office  
3232 Alum Creek Drive  
Columbus, OH 43207

8. 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.
9. The permittee shall submit annual reports which specify the total NO<sub>x</sub>, CO, particulate, SO<sub>2</sub>, OC, and VOC emissions from this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.
10. The permittee shall also submit annual reports that specify the total particulate, NO<sub>x</sub> and OC emissions for emissions units P001, P002, P003, P004, P005 and P006 combined for the previous calendar year. These reports shall be submitted by January 31 of each year.

**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-  
245 TPY NO<sub>x</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.  
  
Applicable Compliance Method-  
Compliance shall be based upon record keeping as specified in Section A.III.1. and shall be determined through the use of CEMs as specified in Section A.III.3.  
  
The monthly NO<sub>x</sub> emissions shall be added to the total NO<sub>x</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of NO<sub>x</sub> emissions.
  - b. Emission Limitation-  
199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.  
  
Applicable Compliance Method-  
Compliance shall be based upon record keeping as specified in Section A.III.1. and shall be determined through the use of CEMs as specified in Section A.III.4.  
  
The monthly CO emissions shall be added to the total CO emissions from the previous

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eleven months to determine the rolling, 12-month summation of CO emissions.

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- c. Emission Limitation-  
11.7 TPY SO<sub>2</sub> as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO<sub>2</sub>/mmBtu) by the combined actual heat input for these emissions units (mmBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (mmBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO<sub>2</sub> emissions shall be added to the total SO<sub>2</sub> emissions from the previous eleven months to determine the rolling, 12-month summation of SO<sub>2</sub> emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO<sub>2</sub>/MMBtu) and fuel sampling analysis for fuel oil as determined in Section A.III.2.

- d. Emission Limitation-  
6.09 TPY VOC\*\*\* as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

## Applicable Compliance Method-

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

- i. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the

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operating hours while burning natural gas for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.

- ii. The VOC\*\*\* emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emission rate (lbs VOC/hour) derived from the emission tests conducted in accordance with Section A.V.2., and dividing by 2,000 lbs/ton.
- iii. The monthly VOC\*\*\* emissions shall be added to the total VOC emissions from the previous 11 months to determine the rolling, 12-month summation of VOC emissions, using the operating hour data from Section A.III.1 and the average emission rates derived from the emission tests conducted in accordance with Section A.V.2.

- e. Emission Limitation-  
Sulfur content of the number two fuel 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).

- g. Emission Limitation-  
NOx emissions shall not exceed 178.5 lbs/hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average.  
Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.

NOx emissions shall not exceed 269.0 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.

Applicable Compliance Method-

Compliance with the NOx emission and concentration limitations may be based upon the

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data from the NO<sub>x</sub> continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

- h. Emission Limitation-  
301 lbs CO/hour, when firing natural gas  
1093 lbs CO/hour, when firing number two fuel oil

Applicable Compliance Method-

Compliance with the CO emission limitation may be based upon the data from the CO continuous emission monitoring system, and the fuel flow monitoring equipment required by this permit. If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

- i. Emission Limitation-  
0.06 lb SO<sub>2</sub>/MMBtu actual heat input

Applicable Compliance Method-

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in A.II.6. and A.III.2. and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM method 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 (4/00).

- j. Emission Limitation-  
2.0 lb/hour SO<sub>2</sub>, when firing natural gas.  
61.0 lbs/hour SO<sub>2</sub>, when firing number two fuel oil.

Applicable Compliance Method-

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

When firing natural gas, compliance shall be based upon multiplying the USEPA default

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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(s) SO<sub>2</sub>/MMBtu by the maximum heat input capacity of this emissions unit. If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

- k. Emission Limitation-  
2.0 lbs/hour VOC, when firing natural gas.  
5.5 lbs/hour VOC\*\*\*, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be determined through emission tests performed in accordance with the requirements specified in Section A.V.2.

- l. Emission Limitation-  
10.0 lbs/hour OC, when firing natural gas.  
11.0 lbs/hour OC, when firing number two fuel oil.

Applicable Compliance Method-

Compliance shall be based upon the record keeping requirements specified in Section 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 18 and/or Method 25 and 25A, as appropriate.

- m. Emission Limitation-  
30.43 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method-

Compliance shall be based upon record keeping as specified in Section A.III.1. and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.

- n. Emission Limitation-  
5.0 lbs/hour particulate emissions, when firing natural gas.  
10.0 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 these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

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- o. Emission Limitation-  
15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

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Applicable Compliance Method-

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

- p. Emission Limitation-  
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.  
  
\*\*\*the permittee has requested that if the average emissions rate (lbs/hour) derived from the emission test conducted in accordance with this term is less than the permit VOC allowable listed in term Section A.I.1., it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes that this modification might trigger the requirement to secure either an administrative or a new air permit to install.
  - c. The following test method(s) shall be employed to demonstrate compliance with the allowable VOC emission limitations:  
  
40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.  
  
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, unless otherwise specified or approved by the Ohio EPA Central District Office.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA Central District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating

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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 Central District Office's refusal to accept the results of the emission test(s).

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

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 Ohio EPA Central District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA Central District Office.

**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>
P006- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, nominal capacity of 1,115.2 MMBtu/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT6 - Combustion Turbine No. 6.	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**

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None

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**VI. Miscellaneous Requirements**

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None