

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install **01-08501**

A. Source Description

DPL Energy, Inc. has submitted a Permit to Install (PTI) application for its 322 megawatt (MW) power generating facility. The Howell Electric Generating Station will be located approximately 0.9 miles northwest of the intersection of Harrold Road and Charleston-Chillicothe Road. The air emission sources will be located in Stokes Township, Madison County, OH. The emission units (P001 through P012) to be installed at this facility are four Pratt-Whitney FT-8 TwinPac simple-cycle combustion turbines. Each turbine has a nominal capacity of 25 MW. Natural gas will be used as the primary fuel and #2 fuel oil will be used as back-up. The terms and conditions requested in Howell Electric Generating Station's Synthetic Minor application will effectively restrict the facility's Potential-To-Emit (PTE) for all pollutants below the level that triggers Prevention of Significant Deterioration (PSD) permitting.

B. Facility Emissions and Attainment Status

The potential emissions were calculated for natural gas and fuel oil usage. The potential emissions were calculated by multiplying the maximum emission rate from each unit (lbs/hr) with 12 since there are 12 such units and 8,760 hours and dividing by 2,000 to get the potential emissions in tons/year. The facility's potential emissions are summarized in Table 1 below:

Table 1.

Pollutant	Maximum hourly emissions (lb/hr) from gas usage	Potential Emission Rate (tpy) from gas usage	Maximum hourly emissions (lb/hr) from oil usage	Potential Emission Rate (tpy) from oil usage
CO	155.73	8,185	23.04	1,211
NOx	36.66	1,927	61.43	3,229
OC	42.70	2,244	37.35	1,963
VOC	10.24	538	3.01	158
PM(PM-10)	6.60	347	18.04	948
SO2	1.10	58	17.20	904

The proposed facility is, however, intended to operate as a peaking facility. Therefore, the facility's potential annual emissions will be restricted to the following emission rates summarized below in table 2.

Table 2.

Pollutant	Total maximum emissions from natural gas firing (tpy)*	Total maximum emissions from fuel oil firing (tpy)**	Total emissions (tpy)	PTI allowable (tpy)***
CO	245	30.0	275	245
NOx	57.7	80.1	137.8	245
OC	67.2	48.7	115.9	115.9
VOC	16.1	3.9	20.0	20.0
PM	10.4	23.5	33.9	33.9
SO2	1.7	22.4	24.1	24.1

* This assuming that the facility burns natural gas at a maximum of 3,146.5 hours

** This assuming that the facility burns No. 2 fuel oil at a maximum of 2,608 hours (6.22 million gallons)

*** For every 6.76 hours that number two fuel oil is not combusted the facility may combust an additional hour

of natural gas, but may not exceed 3,146.5 hours.

C. Source Emissions

To ensure synthetic minor status, a ton per year cap has been placed on nitrogen oxides and carbon monoxide emissions. Carbon monoxide and nitrogen oxides emissions from all the turbines will be monitored using certified continuous emission rate monitors. The annual emission rates will be based on a 12-month rolling average and determined at the end of each calendar month and are federally enforceable. The short term emission limits are based on the maximum design capacity of each emissions unit and are consistent with state Best Available Technology (BAT) requirements. BAT has been determined as use of water injection to control NOx emissions. NOx will be restricted to 25 ppm while burning natural gas and 42 ppm while burning #2 fuel oil. The short term limits are summarized in table 3 below:

Table 3.

Pollutant	Short term emission limits for natural gas firing.	Short term emission limits for fuel oil firing
NOx	36.66 lbs/hr, 25 ppmvd	61.43 lbs/hr, 42 ppmvd
CO	155.73 lbs/hr	23.04 lbs/hr
OC	42.70 lbs/hr	37.35 lbs/hr
VOC	10.24 lbs/hr*	3.01 lbs/hr*
PM	6.60 lbs/hr	18.04 lbs/hr
SO2	1.10 lbs/hr	17.20 lbs/hr

* 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.

D. Conclusion

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 10 tons per year of any individual HAP and less than 25 tons per year for any combination of HAPs. Moreover, the emission limits and operational restrictions contained in the synthetic minor PTI are adequate to provide a federally enforceable framework for ensuring that applicable PSD thresholds will not be exceeded.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
MADISON COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:

Lazarus Gov. Center

Application No: 01-08501

DATE: 9/5/2002

Howell Electric Generating Station
Frank Brayton
PO Box 555
Dayton, OH 45401

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 **\$10300** 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



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**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 01-08501

Application Number: 01-08501
APS Premise Number: 0149000123
Permit Fee: **To be entered upon final issuance**
Name of Facility: Howell Electric Generating Station
Person to Contact: Frank Brayton
Address: PO Box 555
Dayton, OH 45401

Location of proposed air contaminant source(s) [emissions unit(s)]:
10665 Charleston Chillicothe Rd
South Solon, Ohio

Description of proposed emissions unit(s):
Howell G1CT1 - Generator No. 1 / Turbine No. 1.

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

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.10 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

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shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

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10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) 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 Related to Monitoring and Recordkeeping 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

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be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

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

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

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

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

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facility has been constructed in accordance with the Permit To Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

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

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
CO	245
NOx	245
OC	115.9
VOC	20.0
PM	33.9
SO2	24.1
Formaldehyde*	4.31

Howell Electric Generating Station

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Howel

PTI A

Emissions Unit ID: **P001**

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Unpaved roadways	OAC rule 3745-31-05(A)(3)	<p>No visible particulate emissions except for 3 minutes during any 60-minute period.</p> <p>Best available control measures that are sufficient to minimize or eliminate visible emissions of fugitive dust (see Sections A.2.a through A.2.f).</p>

2. Additional Terms and Conditions

- 2.a The permittee shall employ best available control measures on all unpaved roadways and parking areas for the purpose of ensuring compliance with the above-mentioned applicable requirements. In accordance with the permittee’s permit application, the permittee has committed to treat the unpaved roadways and parking areas with wet suppression at sufficient treatment frequencies to ensure compliance. Nothing in this paragraph shall prohibit the permittee from employing other control measures to ensure compliance.
- 2.b The needed frequencies of implementation of the control measures shall be determined by the permittee’s inspections pursuant to the monitoring section of this permit. Implementation of the control measures shall not be necessary for a paved or unpaved roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Implementation of any control measure may be suspended if unsafe or hazardous driving conditions would be created by its use.

Howel

PTI A

Emissions Unit ID: **F001**

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- 2.c** Any unpaved roadway or parking area, which during the term of this permit is paved or takes the characteristics of a paved surface due to the application of certain types of dust suppressants, may be controlled with the control measure(s) specified above for paved surfaces. Any unpaved roadway or parking area that takes the characteristics of a paved

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roadway or parking area due to the application of certain types of dust suppressants shall remain subject to the visible emission limitation for unpaved roadways and parking areas. Any unpaved roadway or parking area that is paved shall be subject to the visible emission limitation for paved roadways and parking areas.

- 2.d** The permittee shall promptly remove, in such a manner as to minimize or prevent resuspension, earth and/or other material from paved streets onto which such material has been deposited by trucking or earth moving equipment or erosion by water or other means.
- 2.e** Open-bodied vehicles transporting materials likely to become airborne shall have such materials covered at all times if the control measure is necessary for the materials being transported.
- 2.f** Implementation of the above-mentioned control measures in accordance with the terms and conditions of this permit is appropriate and sufficient to satisfy the best available technology requirements of OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. Except as otherwise provided in this section, the permittee shall perform inspections of the roadways and parking areas in accordance with the following frequencies:

<u>unpaved roadways and parking areas</u>	<u>minimum inspection frequency</u>
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all	daily
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2. The purpose of the inspections is to determine the need for implementing the above-mentioned control measures. The inspections shall be performed during representative, normal traffic conditions. No inspection shall be necessary for a roadway or parking area that is covered with snow and/or ice or if precipitation has occurred that is sufficient for that day to ensure compliance with the above-mentioned applicable requirements. Any required inspection that is not performed due to any of the above-identified events shall be performed as soon as such event(s) has (have) ended, except if the next required inspection is within one week.
3. The permittee may, upon receipt of written approval from the appropriate Ohio EPA District Office or local air agency, modify the above-mentioned inspection frequencies if operating

experience indicates that less frequent inspections would be sufficient to ensure compliance with the above-mentioned applicable requirements.

4. The permittee shall maintain records of the following information:
 - a. the date and reason any required inspection was not performed, including those inspections that were not performed due to snow and/or ice cover or precipitation;
 - b. the date of each inspection where it was determined by the permittee that it was necessary to implement the control measures;
 - c. the dates the control measures were implemented; and
 - d. on a calendar quarter basis, the total number of days the control measures were implemented and the total number of days where snow and/or ice cover or precipitation were sufficient to not require the control measures.

The information required in 4.d. shall be kept separately for (i) the paved roadways and parking areas and (ii) the unpaved roadways and parking areas, and shall be updated on a calendar quarter basis within 30 days after the end of each calendar quarter.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation reports that identify any of the following occurrences:
 - a. each day during which an inspection was not performed by the required frequency, excluding an inspection which was not performed due to an exemption for snow and/or ice cover or precipitation; and
 - b. each instance when a control measure, that was to be implemented as a result of an inspection, was not implemented.
2. The deviation reports shall be submitted in accordance with the reporting requirements of the General Terms and Conditions of this permit.

V. Testing Requirements

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

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Howel

PTI A

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(B)(4)(d) of OAC rule 3745-17-03.

Emissions Unit ID: **F001**

VI. Miscellaneous Requirements

None

Howel

PTI A

Emissions Unit ID: F001

Issued: To be entered upon final issuance**B. State Only Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
F001 - Unpaved roadways		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

**Howel
PTI A**

Emissions Unit ID: **P001**

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

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

**Howel
PTI A**

Emissions Unit ID: **P001**

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	1.10 lbs/hour of SO ₂ emissions when firing natural gas. 17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NOx CEM system for this emissions unit.

- 2.b** 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.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8

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1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

natural gas;

- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

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

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- b. Within 60 days of the start-up 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 the 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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports

shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.
- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:
- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
 - ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
 - iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.
- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A.II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

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- l. Emission Limitations -
10.24 lbs/hour VOC, when firing natural gas.
3.01 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.
 - m. Emission Limitations -
2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.
 - n. Emission Limitations -
6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -
Compliance may be demonstrated by the emissions unit 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 -
33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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

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for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P001 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT1 - Generator No. 1, Turbine No. 1		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P002 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT2 - Generator No. 1, Turbine No. 2	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	1.10 lbs/hour of SO ₂ emissions when firing natural gas. 17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

- To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6

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1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;

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- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;

- b. Within 60 days of the start-up 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 the 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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
 - a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall

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address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring
 - a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

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- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

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- l. Emission Limitations -
10.24 lbs/hour VOC, when firing natural gas.
3.01 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.
- m. Emission Limitations -
2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.
- n. Emission Limitations -
6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -
Compliance may be demonstrated by the emissions unit 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 -
33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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.

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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 start-up of the emissions unit.
 - b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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.

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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, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G1CT2 - Generator No. 1, Turbine No. 2		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m3): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.12

MAGLC (ug/m3): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P003 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT3 - Generator No. 2, Turbine No. 3	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-17-07(A)

OAC rule 3745-18-06(F)

40 CFR Part 60, Subpart GG

OAC rule 3745-21-08(B)

OAC rule 3745-23-06(B)

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<u>Applicable Emissions Limitations/Control Measures</u>		Emissions Unit ID: P003
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	when the unit operates at full load for the entire clock-hour of the averaging period.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	0.040 lb of PE/MMBtu actual heat input.	0.06 lb of SO ₂ emissions/MMBtu actual heat input
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
	NOx emissions shall not exceed 61.43 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	1.10 lbs/hour of SO ₂ emissions when firing natural gas.
		17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil.
		42.70 lbs/hr of OC emissions when firing natural gas.
		37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
		10.24 lbs/hour of VOC emissions when firing natural gas.
		3.01 lbs/hour of VOC emissions when firing number two fuel oil.
		0/23 lbs/hour of formaldehyde* emissions when firing natural gas.
		0.084 lbs/hour of formaldehyde* emissions when firing number two fuel

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oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate a NO_x CEM system for this emissions unit.
- 2.b** 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

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operate systems to continuously monitor and record emissions of NO_x from this emissions unit.

- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002,

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P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1

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1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

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To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be

used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

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number two fuel oil;

- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;
- b. Within 60 days of the start-up 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 the Ohio EPA. Personnel from the Ohio EPA, Central District Office shall

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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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up 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

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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; and
 - 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 quality 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

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exemption for ice-fog provided in 40 CFR Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40

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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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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 163669

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Columbus, Ohio 43216-3669

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

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

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous 11 months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

d. Emission Limitation -

115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

- e. Emission Limitation -
20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

- f. 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 requirements specified in Section A.II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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:

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- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P003 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT3 - Generator No. 2, Turbine No. 3		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P004 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT4 - Generator No. 2, Turbine No. 4	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur. 1.10 lbs/hour of SO ₂ emissions when firing natural gas.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8

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1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

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natural gas;

- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

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

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- b. Within 60 days of the start-up 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 the 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 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; and
 - 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.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports

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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 Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.
- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:
- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
 - ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
 - iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.
- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

- f. 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 requirements specified in Section A.II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

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- l. Emission Limitations -
10.24 lbs/hour VOC, when firing natural gas.
3.01 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.
 - m. Emission Limitations -
2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.
 - n. Emission Limitations -
6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -
Compliance may be demonstrated by the emissions unit 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 -
33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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

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for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P004 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G2CT4 - Generator No. 2, Turbine No. 4		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P005 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT5- Generator No. 3, Turbine No. 5	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur. 1.10 lbs/hour of SO ₂ emissions when firing natural gas.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

- To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6

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1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;

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- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

- 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_x Emission Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;

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- b. Within 60 days of the start-up 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 the 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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
 - a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall

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address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring
 - a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

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- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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

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for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT5 - Generator No. 3, Turbine No. 5		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m3): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.12

MAGLC (ug/m3): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P006 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT6 - Generator No. 3, Turbine No. 6	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-17-07(A)

OAC rule 3745-18-06(F)

40 CFR Part 60, Subpart GG

OAC rule 3745-21-08(B)

OAC rule 3745-23-06(B)

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Applicable Emissions Limitations/Control Measures		
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO2) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	when the unit operates at full load for the entire clock-hour of the averaging period.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	0.040 lb of PE/MMBtu actual heat input.	0.06 lb of SO2 emissions/MMBtu actual heat input
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
	NOx emissions shall not exceed 61.43 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	1.10 lbs/hour of SO2 emissions when firing natural gas.
		17.20 lbs/hour of SO2 emissions when firing number two fuel oil.
		42.70 lbs/hr of OC emissions when firing natural gas.
		37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
		10.24 lbs/hour of VOC emissions when firing natural gas.
		3.01 lbs/hour of VOC emissions when firing number two fuel oil.
		0.23 lbs/hour of formaldehyde* emissions when firing natural gas.
		0.084 lbs/hour of formaldehyde* emissions when firing number two fuel

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oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate a NO_x CEM system for this emissions unit.
- 2.b** 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

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operate systems to continuously monitor and record emissions of NOx from this emissions unit.

- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002,

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P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1

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1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

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To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be

used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

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number two fuel oil;

- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;
- b. Within 60 days of the start-up 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 the Ohio EPA. Personnel from the Ohio EPA, Central District Office shall

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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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up 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

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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; and
 - 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 quality 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

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exemption for ice-fog provided in 40 CFR Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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.

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- d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40

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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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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 163669

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Columbus, Ohio 43216-3669

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

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

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous 11 months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

d. Emission Limitation -

115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

- e. Emission Limitation -
20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A.II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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:

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- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P006 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G3CT6 - Generator No. 3, Turbine No. 6		

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P007 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT7 - Generator No. 4, Turbine No. 7	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur. 1.10 lbs/hour of SO ₂ emissions when firing natural gas.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

- To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8

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1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

natural gas;

- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

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

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- b. Within 60 days of the start-up 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 the 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 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; and
 - 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.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports

shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

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- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.
- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:
- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
 - ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
 - iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.
- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A.II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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:

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- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P007 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT7 - Generator No. 4, Turbine No. 7		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P008 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT8 - Generator No. 4, Turbine No. 8	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions Limitations/Control Measures	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur. 1.10 lbs/hour of SO ₂ emissions when firing natural gas.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil. 10.24 lbs/hour of VOC emissions when firing natural gas.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6

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1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;

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- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

- 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_x Emission Monitoring
 - a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;

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- b. Within 60 days of the start-up 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 the 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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
 - a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall

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address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring
 - a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

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- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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

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for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P008- Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G4CT8 - Generator No. 4, Turbine No. 8		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m3): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.12

MAGLC (ug/m3): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P009 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G5CT9 - Generator No. 5, Turbine No. 9	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-17-07(A)

OAC rule 3745-18-06(F)

40 CFR Part 60, Subpart GG

OAC rule 3745-21-08(B)

OAC rule 3745-23-06(B)

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<u>Applicable Emissions Limitations/Control Measures</u>		Emissions Unit ID: P009
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	when the unit operates at full load for the entire clock-hour of the averaging period.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	0.040 lb of PE/MMBtu actual heat input.	0.06 lb of SO ₂ emissions/MMBtu actual heat input
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
	NOx emissions shall not exceed 61.43 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	1.10 lbs/hour of SO ₂ emissions when firing natural gas.
		17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil.
		42.70 lbs/hr of OC emissions when firing natural gas.
		37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
		10.24 lbs/hour of VOC emissions when firing natural gas.
		3.01 lbs/hour of VOC emissions when firing number two fuel oil.
		0.23 lbs/hour of formaldehyde* emissions when firing natural gas.
		0.084 lbs/hour of formaldehyde* emissions when firing number two fuel

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oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate a NO_x CEM system for this emissions unit.
- 2.b** 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

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operate systems to continuously monitor and record emissions of NOx from this emissions unit.

- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002,

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P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1

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1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

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To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be

used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

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number two fuel oil;

- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;
- b. Within 60 days of the start-up 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 the Ohio EPA. Personnel from the Ohio EPA, Central District Office shall

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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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up 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

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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; and
 - 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 quality 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

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exemption for ice-fog provided in 40 CFR Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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.

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- d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40

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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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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 163669

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Columbus, Ohio 43216-3669

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

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

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous 11 months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

d. Emission Limitation -

115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

- e. Emission Limitation -
20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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:

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- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P009 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G5CT9 - Generator No. 5, Turbine No. 9		

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P010 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G5CT10 - Generator No. 5, Turbine No. 10	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil.
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions.	0.06 lb of SO ₂ emissions/MMBtu actual heat input The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	0.040 lb of PE/MMBtu actual heat input. NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	1.10 lbs/hour of SO ₂ emissions when firing natural gas. 17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

- To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8

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1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

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natural gas;

- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

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

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- b. Within 60 days of the start-up 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 the 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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports

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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 Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

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- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.
- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.
- Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:
- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
 - ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
 - iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.
- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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:

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- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P010 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G5CT10 - Generator No. 5, Turbine No. 10		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
P011 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G6CT11 - Generator No. 6, Turbine No. 11	OAC rule 3745-31-05(D)
	40 CFR Part 75 OAC chapter 3745-103
	OAC rule 3745-17-11(B)(4)

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

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OAC rule 3745-18-06(F)
40 CFR Part 60, Subpart GG
OAC rule 3745-21-08(B)
OAC rule 3745-23-06(B)

OAC rule 3745-17-07(A)

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Applicable Emissions <u>Limitations/Control Measures</u>	P004, P005, P006, P007, P008, P009, P010, P011, and P012.	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.
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil. 0.06 lb of SO ₂ emissions/MMBtu actual heat input
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions. 0.040 lb of PE/MMBtu actual heat input.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	1.10 lbs/hour of SO ₂ emissions when firing natural gas. 17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil. 42.70 lbs/hr of OC emissions when firing natural gas. 37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003,	NOx emissions shall not exceed 61.43 lbs/hour at all operating loads and 42 ppmvd at 15% oxygen at full load when firing number two fuel	10.24 lbs/hour of VOC emissions when firing natural gas. 3.01 lbs/hour of VOC emissions when firing number two fuel oil.

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0.23 lbs/hour of formaldehyde* emissions when firing natural gas.

0.084 lbs/hour of formaldehyde* emissions when firing number two fuel oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall

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install and operate a NO_x CEM system for this emissions unit.

- 2.b** 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_x from this emissions unit.
- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NO_x emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NO_x Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
1 - 3	245
1 - 4	245
1 - 5	245
1 - 6	245
1 - 7	245
1 - 8	245
1 - 9	245
1 - 10	245

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1 - 11	245
1 - 12	245

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6

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1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1
1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

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5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results

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provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;

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- h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

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

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- b. Within 60 days of the start-up 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 the 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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;
 - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
 - a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up of this emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section

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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; and
 - 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 quality 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

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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 Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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).

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- 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 SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall

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address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring
 - a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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).

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Reports are to be sent to:

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

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

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

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- b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

- c. Emission Limitation -
24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

- d. Emission Limitation -

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115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

e. Emission Limitation -

20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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

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for this emissions unit in accordance with the following requirements:

- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P011 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G6CT11- Generator No. 6, Turbine No. 11		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the

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"worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m3): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.12

MAGLC (ug/m3): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

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satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

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OAC rule 3745-17-07(A)

OAC rule 3745-18-06(F)

40 CFR Part 60, Subpart GG

OAC rule 3745-21-08(B)

OAC rule 3745-23-06(B)

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<u>Applicable Emissions Limitations/Control Measures</u>		Emissions Unit ID: P012
245 tons per year (TPY) of nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	24.1 TPY of sulfur dioxide (SO ₂) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	when the unit operates at full load for the entire clock-hour of the averaging period.
245 TPY of carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	4.31 TPY of formaldehyde* emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	CO emissions shall not exceed 155.73 lbs/hour when firing natural gas.
115.9 TPY of organic compounds (OC) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	See Part I, Section A.IV.4. Title IV Provisions.	CO emissions shall not exceed 23.04 lbs/hour when firing number two fuel oil.
20.0 TPY of volatile organic compounds (VOC*) emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	0.040 lb of PE/MMBtu actual heat input.	0.06 lb of SO ₂ emissions/MMBtu actual heat input
33.9 TPY of particulate emissions (PE) as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.	NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 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 25 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.	The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.
	NOx emissions shall not exceed 61.43 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	1.10 lbs/hour of SO ₂ emissions when firing natural gas.
		17.20 lbs/hour of SO ₂ emissions when firing number two fuel oil.
		42.70 lbs/hr of OC emissions when firing natural gas.
		37.35 lbs/hr of OC emissions when firing number 2 fuel oil.
		10.24 lbs/hour of VOC emissions when firing natural gas.
		3.01 lbs/hour of VOC emissions when firing number two fuel oil.
		0.23 lbs/hour of formaldehyde* emissions when firing natural gas.
		0.084 lbs/hour of formaldehyde* emissions when firing number two fuel

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oil.

6.60 lbs/hour of PE when firing natural gas.

18.04 lbs/hour of PE 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 rules 3745-17-11(B)(4), and 3745-31-05(D).

The emission limitation from these rules are less stringent than the emission limitations established pursuant to OAC rules 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 OAC rule 3745-31-28 regulations, that all Hazardous Air Pollutants (HAPs) emissions are less than VOC emissions.

2. Additional Terms and Conditions

- 2.a** In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a CEM to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate a NO_x CEM system for this emissions unit.
- 2.b** 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

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operate systems to continuously monitor and record emissions of NOx from this emissions unit.

- 2.c** 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.d** In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and CEM requirements for this emissions unit in accordance with this permit.
- 2.e** Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization as defined as "base load" in 40 Code of Federal Regulations (CFR), Part 60, Subpart GG and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 2.f** Full load shall be defined as "Peak Load" as written in 40 CFR, Part 60, Subpart GG.

II. Operational Restrictions

1. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative NOx emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the NOx Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002,

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P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative CO emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the CO Emission Rate (tons)</u>
1	81.7
1 - 2	163.3
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 start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the CO emissions for these emissions units.

3. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative SO2 emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the SO2 Emission Rate (tons)</u>
1	4.8
1 - 2	9.6
1 - 3	14.4
1 - 4	19.2
1 - 5	24.1
1 - 6	24.1

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1 - 7	24.1
1 - 8	24.1
1 - 9	24.1
1 - 10	24.1
1 - 11	24.1
1 - 12	24.1

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the SO₂ emissions for these emissions units.

4. To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the permittee shall not exceed the cumulative VOC emission rates specified in the following table:

<u>Month</u>	<u>Cumulative Summation of the VOC Emission Rate (tons)</u>
1	6.7
1 - 2	13.3
1 - 3	20.0
1 - 4	20.0
1 - 5	20.0
1 - 6	20.0
1 - 7	20.0
1 - 8	20.0
1 - 9	20.0
1 - 10	20.0
1 - 11	20.0
1 - 12	20.0

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, compliance with the annual emission limitation shall be based upon a rolling, 12-month summation of the VOC emissions for these emissions units.

5. The maximum annual operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 shall not exceed 2,761** while burning natural gas and 2,608** while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

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To ensure enforceability during the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the permittee shall not exceed the cumulative operating hours levels specified in the following table:

<u>Month</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Natural Gas**</u>	<u>Maximum Allowable Cumulative Operating Hours While Burning Number Two Fuel Oil**</u>
1	920	869
1 - 2	1,841	1,739
1 - 3	2,760	2,608
1 - 4	2,761	2,608
1 - 5	2,761	2,608
1 - 6	2,761	2,608
1 - 7	2,761	2,608
1 - 8	2,761	2,608
1 - 9	2,761	2,608
1 - 10	2,761	2,608
1 - 11	2,761	2,608
1 - 12	2,761	2,608

**based on maximum usage of 6.22 million gallons of No. 2 fuel oil. Also, the permittee may combust 1.0 additional hour of natural gas for every 6.76 hours that number two fuel oil is not combusted, up to 3,146.5 hours annually of natural gas combustion.

After the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, 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 SO₂ emission limitation.

Compliance with the above-mentioned specification shall be determined by using analytical results provided by the permittee or oil supplier for each shipment of oil. The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with the following ASTM methods: ASTM method D4294, ASTM method D240, or ASTM method 6010 for sulfur content; and ASTM method D240 for heat content. The most recent revisions to the applicable test method shall be used for the analyses. Alternative, equivalent methods may be

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used upon written approval by the Ohio EPA, Central District Office.

7. The permittee shall burn only pipeline quality 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 for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - d. The summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning number two fuel oil;
 - e. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning natural gas;
 - f. During the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the cumulative operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined for each calendar month when burning number two fuel oil;
 - g. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning natural gas;
 - h. Following the first 12 calendar months of operation following start-up of emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012, the rolling, 12-month summation of the operating hours for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined when burning

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number two fuel oil;

- i. The monthly emission rate* for NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂, in tons; and
- j. Beginning after the first 12 calendar months of operation, the rolling, 12-month summation of NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions, in tons.

* The permittee shall use CEM data to determine emissions for those pollutants where a CEM is installed.

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_x Emission Monitoring

- a. Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office;
- b. Within 60 days of the start-up 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 the Ohio EPA. Personnel from the Ohio EPA, Central District Office shall

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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_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2 and/or 40 CFR Part 75;

- c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO_x from this emissions unit in units of the applicable standard. 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_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x 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; and
 - 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_x monitoring system designed to ensure continuous valid and representative readings of NO_x 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_x monitoring system must be kept on site and available for inspection during regular office hours.
4. Continuous CO Emission Monitoring
- a. Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office;
 - b. Within 60 days of the start-up 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

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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; and
 - 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 quality 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

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exemption for ice-fog provided in 40 CFR Part 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 (excursion) reports to the Ohio EPA, Central District Office that identify any exceedances of the following:
 - a. For the first 12 months of operation following start-up of these emissions units, the cumulative NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates from emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 combined.
 - b. Beginning after the first 12 calendar months of operation following start-up of these emissions units, the rolling, 12-month summation of the NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emission rates for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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.

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- d. The weighted* average SO₂ emission rate (lbs/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ 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_x Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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_x values in excess of the applicable limits specified in the terms and conditions of this permit (36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load when burning natural gas and 61.43 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_x 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_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report; and
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Continuous CO Emission Monitoring

- a. Pursuant to OAC rule 3745-15-04 and ORC sections 3704.03(I) and 3704.031 and 40

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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 (155.73 lbs/hour when burning natural gas, and 23.04 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; and
 - c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.
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 163669

**Howel
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Columbus, Ohio 43216-3669

and

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 quality 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 deviation (excursion) reports that identify each day when a start-up and/or shut down event exceeded 15 minutes in duration. Each report shall be submitted within 30 days after the deviation occurs.
10. The permittee shall submit annual reports that specify the total NO_x, CO, OC, VOC, formaldehyde, PM/PM₁₀, and SO₂ emissions for this emissions unit for the previous calendar year. These reports shall be submitted by January 31 of each year.

V. Testing Requirements

1. Compliance with the emission limitations in Section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:
 - a. Emission Limitation -
245 TPY NO_x as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

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

The monthly NO_x emissions shall be added to the total NO_x emissions from the previous 11 months to determine the rolling, 12-month summation of NO_x emissions.
 - b. Emission Limitation -
245 TPY CO as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j 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 11 months to determine the rolling, 12-month summation of CO emissions.

c. Emission Limitation -

24.1 TPY SO₂ as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and A.III.1.j and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number two fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/month) and then dividing by 2,000 lbs/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 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 SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lbs/ton.
- iii. The monthly SO₂ emissions shall be added to the total SO₂ emissions from the previous 11 months to determine the rolling, 12-month summation of SO₂ emissions, using the USEPA default value for pipeline natural gas (0.0006 lb SO₂/MMBTU) and the fuel oil sampling analyses as determined in Section A.III.2.

d. Emission Limitation -

115.9 TPY of OC emissions as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.1.j.

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

- e. Emission Limitation -
20.0 TPY VOC*** as a rolling, 12-month summation combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

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

- i. The VOC*** emissions for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 from the burning of natural gas shall be determined by multiplying the 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, P006, P007, P008, P009, P010, P011, and P012 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.

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- f. 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 requirements specified in Section A. II.6 and the record keeping requirements specified in Section A.III.2.
- g. Emission Limitation -
0.040 lb PE/MMBtu actual heat input
- Applicable Compliance Method -
Compliance may be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).
- h. Emission Limitations -
NOx emissions shall not exceed 36.66 lbs/hour at all operating loads and 25 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 25 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 61.43 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 data from the NOx 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.
- i. Emission Limitations -
155.73 lbs CO/hour, when firing natural gas
23.04 lbs CO/hour, when firing number two fuel oil
- Applicable Compliance Method -

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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.

- j. Emission Limitation -
0.06 lb SO₂/MMBtu actual heat input

Applicable Compliance Method -

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

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

- k. Emission Limitations -
1.10 lbs/hour SO₂, when firing natural gas.
17.20 lbs/hour SO₂, 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 quality natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis and record keeping requirements specified in Sections II.6. and III.2 and shall be determined by multiplying the SO₂ emissions in lb(s) SO₂/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.

- l. Emission Limitations -

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10.24 lbs/hour VOC, when firing natural gas.
3.01 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.

m. Emission Limitations -

2.74 lbs/hour of formaldehyde emissions when firing natural gas.
1.01 lbs/hour of formaldehyde emissions 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.

n. Emission Limitations -

6.60 lbs/hour PE, when firing natural gas.
18.04 lbs/hour PE, when firing number two fuel oil.

Applicable Compliance Method -

Compliance may be demonstrated by the emissions unit 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 -

33.9 TPY PE combined from emission units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012.

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in Section A.III.1.i and III.A.1.j and the emissions unit 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:

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- a. The emission testing shall be conducted within 90 days following start-up of the emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the formaldehyde and VOC*** emission limitations.

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

- c. The following test methods shall be employed to demonstrate compliance with the allowable formaldehyde and VOC emission limitations:

For formaldehyde, SW-846 Method 0011; for VOC, 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).

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

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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>
P012 - Natural gas and number two fuel oil-fired, simple cycle, combustion turbine, having a nominal capacity of 322 MMBtu/hr (25 MW), controlled with a water injection nitrogen oxides reduction system; G6CT12- Generator No. 6, Turbine No. 12		

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

- 1. The permit to install for emissions units P001, P002, P003, P004, P005, P006, P007, P008, P009, P010, P011, and P012 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

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Pollutant: formaldehyde

TLV (mg/m³): 0.37

Maximum Hourly Emission Rate (lbs/hr): 2.74

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m³): 1.12MAGLC (ug/m³): 8.8

Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).
2. If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Emissions Unit ID: T001

Issued: To be entered upon final issuance**PART III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)****A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T001 - 550,000-Gallon fuel oil internal floating roof storage tank with submerged fill	OAC rule 3745-31-05(A)(3)	0.01 TPY volatile organic compounds (VOC)
	OAC rule 3745-21-09(L)(1)	See Section A.I.2.
	NSPS 40 CFR Part 60 Subpart Kb	See Section A.III.2.

2. Additional Terms and Conditions

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

II. Operational Restrictions

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

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01(C)(6).

Emissions Unit ID: **T001**

Howel**PTI A**Emissions Unit ID: **T001****Issued: To be entered upon final issuance****III. Monitoring and/or Record keeping Requirements**

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

IV. Reporting Requirements

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

V. Testing Requirements

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

0.01 TPY VOC

Applicable Compliance Method -

Compliance shall be demonstrated based upon the record keeping requirements specified in section A.III.4 and the formulas provided in AP-42 Chapter 7, Organic Liquid Storage Tanks, section 7.1.3.1, Total Losses from Fixed Roof Tanks (9/1997) or the "TANKS 3.1" software program.

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 limit of 293 t/year, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
T001		

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Record keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

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Howell Electric Generating Station

PTI Application: 01 09501

Issued

Facility ID: 0149000123

Emissions Unit ID: T001

None