



State of Ohio Environmental Protection Agency

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

Street Address:

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

Mailing Address:

Lazarus Gov. Center

**Application No: 02-13376**

**DATE: 2/16/00**

West Lorain Plant - Ohio Edison Co  
Robert Williams  
76 S Main St  
Akron, OH 44308

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 **\$6250** 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,

Thomas G. Rigo  
Field Operations and Permit Section  
Division of Air Pollution Control

CC: USEPA  
Robert Armbruger

NEDO



**Permit To Install**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

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

**DRAFT PERMIT TO INSTALL 02-13376**

Application Number: 02-13376  
APS Premise Number: 0247080487  
Permit Fee: **To be entered upon final issuance**  
Name of Facility: West Lorain Plant - Ohio Edison Co  
Person to Contact: Robert Williams  
Address: 76 S Main St  
Akron, OH 44308

Location of proposed air contaminant source(s) [emissions unit(s)]:

**7101 W Erie Ave  
Lorain, Ohio**

Description of proposed emissions unit(s):

**Five (5) stationary combustion turbines.**

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.11 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.

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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. 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.

**5. Termination of Permit To Install**

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

#### **6. 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 are inadequate 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 prove to be inadequate or cannot meet applicable standards.

#### **7. 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.

#### **8. 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).

#### **9. Best Available Technology**

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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.

**10. Construction Compliance Certification**

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

**11. 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>
Particulate/PM10	75.3
Sulfur Dioxide	39.9
Carbon Monoxide	719.61
Nitrogen Oxides	629.92
Volatile Organic Compound	122.2
Sulfuric Acid Mist	4.2
Formaldehyde	8.5

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**Part II - FACILITY SPECIFIC TERMS AND CONDITIONS****A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions****1. NSPS REQUIREMENTS**

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

<u>Source Number</u>	<u>Source Description</u>	<u>NSPS Regulation (Subpart)</u>
P001-P005	5 Stationary Gas Turbines	Subpart GG

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator 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 (If required, at least 30 days prior to testing).

Reports are to be sent to:

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

and **Ohio EPA-Northeast District Office**  
**Division of Air Pollution Control**  
**2110 E. Aurora Road**  
**Twinsburg, OH 44087**

**2. PSD REQUIREMENTS**

The source described in this Permit to Install is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency 40 CFR 52.21. The authority to apply and enforce the PSD regulations has been delegated to the Ohio Environmental Protection Agency. The terms and conditions of this permit

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and the requirements of the PSD regulations are also enforceable by the United States Environmental Protection Agency.

In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply: (1) the effective date of this permit shall be 30 days after the service of notice to any public commentors of the final decision to issue, modify, or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service of notice; and (2) if an appeal is made to the Environmental Appeals Board of the United States Environmental Protection Agency, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency  
Environmental Appeals Board  
401 M Street, SW (MC-113do)  
Washington, DC 20460

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

None.

West I  
PTI A

Emissions Unit ID: P001

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

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>
Simple Cycle Stationary Combustion Turbine No. 2A, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	<p>40 CFR Part 52, Section 52.21 and OAC rule 3745-31-10 through OAC rule 3745-31-20.</p> <p>OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements.</p> <p>OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements</p> <p>OAC rule 3745-31-05(D) Synthetic Minor to avoid MACT rule</p>

Issued

Emissions Unit ID: P001

from emissions units P001-P005.

1,873,239 gallons of no. 2 fuel oil based upon a rolling, 12-month summation combined from emissions units P001-P005.

Sulfuric Acid Mist emissions, occurs during oil-firing only: 0.0325 lb/mmbtu, actual heat input; and

4.2 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

Formaldehyde emissions when gas-firing: 7.13 E -04 lb /mmbtu, actual heat input; and

8.5 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average except as provided by rule.

See Part I, term A.4.

requirements

Applicable Emissions  
Limitations/Control Measures

Particulate/PM10 emissions:  
5.0 lbs/hour, when gas-firing;

OAC rule 3745-17-07(A)

10.0 lbs/hour, when oil-firing; and

15.1 tons per rolling 12-month period.

40 CFR Part 75

Nitrogen Oxide emissions:  
9 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen on a dry basis, as a daily average, when gas-firing;

42 ppmv at 15% oxygen on a dry basis, when oil-firing; and

125.9 tons per rolling 12-month period.

Carbon Monoxide Emissions:  
83.0 lbs/hour; and

143.9 tons per rolling 12-month period.

Organic Compounds:  
10.0 lbs/hour, when gas-firing;

11.0 lbs/hour, when oil-firing; and

24.4 tons per rolling 12-month period.

Sulfur Dioxide emissions:  
0.007 lb/mmbtu, actual heat input when gas-firing; and  
0.3 lb/mmbtu, actual heat input when oil-firing; and  
39.9 tons per year, as a rolling 12-month summation combined

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

- 2.a** The listed Particulate/PM10 emissions limits are more stringent than the requirements of OAC rule 3745-17-11(B)(4), they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".
- 2.b** The listed nitrogen oxides emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG and OAC rule 3745-23-06, they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".
- 2.c** The listed sulfur dioxide emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG, they were chosen by the applicant to avoid the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality". This is a synthetic minor PTI for sulfur dioxide emissions.
- 2.d** The listed carbon monoxide emission limits are equivalent to the requirements of OAC rule 3745-21-08(B) which states that all new stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with the best current technology.
- 2.e** The following Best Available Control Technology (BACT) determinations have been made in accordance with the PSD regulations:

Particulate/PM10 emissions - the BACT determination is the use of only clean burning fuels, natural gas and no. 2 fuel oil in the very efficient combustion turbines, capable of meeting the above listed emissions limits.

Nitrogen oxide emissions - the BACT determination is the use of dry low- NOx burners (DNLB) when firing natural gas and water injection into the combustion zone when fuel oil firing, and the ppmv NOx levels as denoted in Part III.A.I.1.

Carbon monoxide emissions - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.

Organic compounds - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.

Emissions Unit ID: **P001**

- 2.f** The above annual sulfur dioxide emission limit makes this a synthetic minor PTI for sulfur dioxide emissions and exempts emissions units P001-P005 from the requirements of the PSD regulations.
- 2.g** The above annual formaldehyde emission limit makes this a synthetic minor PTI for formaldehyde emissions and exempts emissions units P001-P005 from the requirements of OAC rule 3745-31-28, the major MACT source review rule.
- 2.h** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05, for sulfur dioxide emissions is the use of natural gas as the primary fuel and no. 2 fuel oil as a limited use back-up fuel, and the lb/mmbtu as denoted in Part III.AI.1.
- 2.i** The permittee shall install and operate systems to monitor and record and report emissions of NOx in accordance with this permit, in lieu of the following Subpart GG requirements:

Section 60.334(a) continuous monitoring system to monitor and record fuel consumption and the ratio of water to fuel being fired in each turbine.

Section 60.334(c) excess emissions reporting.

## II. Operational Restrictions

1. The sulfur content of the no. 2 fuel oil fired in emissions units P001-P005 shall not exceed 0.3% sulfur, by weight.
2. To maintain compliance with the above sulfur dioxide emission limit the permittee shall restrict the usage of no. 2 fuel oil in emissions units P001-P005 to 1,873,239 gallons per rolling consecutive 12 month period. This limit is equivalent to the above annual SO<sub>2</sub> emission limit of 39.9 tons combined for emissions units P001-P005.

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual fuel oil usage limitation shall be based on a rolling, 12-month summation.

The permittee may fire a greater volume of no. 2 fuel oil than is specified above if said fuel oil contains less than 0.3% sulfur, by weight, as long as the permittee maintains compliance with the annual SO<sub>2</sub> limit of 39.9 tons. If lower sulfur no. 2 fuel oil is fired, the permittee shall calculate the resulting monthly SO<sub>2</sub> emission rate on a daily basis. The formula for calculating the monthly SO<sub>2</sub> emission rate, in tons, is listed below. This limit is equivalent to the above annual formaldehyde emission limit of 8.5 tons combined for emissions units P001-P005.

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3. To maintain compliance with the above annual formaldehyde emission limit the permittee shall restrict the combined total operation of emissions units P001-P005 while firing natural gas to 27,155 hours per rolling 12 month period.

To ensure Federal enforceability during the first 12 months of operation of emissions units P001-P005, while natural gas-firing, the permittee shall not exceed the combined total operational limits listed for the specified time periods in the following table:

<b>MONTHS</b>	<b>OPERATIONAL LIMITS IN HOURS</b>
1	3,600
1 - 2	7,200
1 - 3	10,800
1 - 4	14,400
1 - 5	16,000
1 - 6	17,500
1 - 7	19,000
1 - 8	20,500
1 - 9	23,000
1 - 10	24,500
1 - 11	26,000
1 - 12	27,155

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual operating limitation, while natural gas-firing, shall be based on a rolling, 12-month summation of the operating hours, while natural gas-firing.

4. The permittee shall install and operate a water injection system on each combustion turbine for the control of nitrogen oxide emissions during no. 2 fuel oil firing, only.

**III. Monitoring and/or Recordkeeping Requirements**

1. Statement of Certification - NO<sub>x</sub> Monitoring
- a. Prior to the installation of the continuous **NO<sub>x</sub>** monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 75, 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 40 CFR Part 75. Personnel from the Ohio EPA Northeast 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 Northeast District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Northeast District Office and the Ohio EPA, Central Office. Certification of the continuous  $NO_x$  monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of 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 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, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
  - e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous  $NO_x$  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 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.
2. In accordance with Subpart GG, Section 60.334(b), the permittee shall monitor the sulfur

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content of the fuel being fired in the turbine. The frequency of determination of this value shall be as follows:

If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. The permittee may develop custom schedules for 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 Administrator before they can be used to comply with paragraph (b) of Section 60.334.

3. The permittee shall determine fuel sulfur content in accordance with the requirements of Subpart GG, Section 60.335(d) and (e).
4. The permittee shall keep daily records of the following information:
  - a. the combined total amount of no. 2 fuel oil burned, in gallons, in emissions units P001-P005;
  - b. the rolling 12-month summation of the no. 2 fuel oil usage, in gallons;
  - c. the amount of natural gas burned, in cubic feet;
  - d. the rolling 12-month summation of the sulfur dioxide emissions, in tons, for emissions units P001-P005;
  - e. the number of hours the emissions unit is in operation when combusting no. 2 fuel oil; and
  - f. the number of hours the emissions units is in operation when combusting natural gas.
5. If the permittee fires no. 2 fuel oil with a sulfur content of less than 0.3% sulfur, by weight, the permittee shall calculate the resulting monthly SO<sub>2</sub> emissions on a daily basis as follows:

$$\text{Gallons oil fired/day} \times 142(S)/1,000 \text{ gallons oil} = \text{lbs. SO}_2 \text{ emissions/day}$$

where S = percent sulfur content, by weight, of the fuel oil.

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To determine the monthly emission rate of SO<sub>2</sub>, the permittee shall then sum the daily calculated emission rates for each day of the calendar month that emissions units P001-P005 fired no. 2 fuel oil and convert that sum to tons per month.

## 6. Statement of Certification - Opacity Monitor

Prior to the installation of the continuous opacity 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 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the start up of this emissions unit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity 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 1 including section 5.1.9 (mandatory).

Within 60 days of the effective date of this permit or modification to the system, the permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control

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plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast 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.

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

2. The permittee shall notify the Ohio EPA Northeast District Office if the combined total amount of no. 2 fuel oil with a sulfur content of 0.3%, by weight, burnt in emissions units P001-P005 exceeds the above gallons per year limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
3. The permittee shall notify the Ohio EPA Northeast District Office if the sulfur content of the fuel oil burnt in emissions units P001-P005 exceeds the above limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
4. The permittee shall notify the Ohio EPA NEDO if the combined total calculated sulfur dioxide emission for the first 12 months of operation, or any 12 months thereafter, exceeds 39.9 tons. Such reports shall be made within 30 days of becoming aware of any such exceedance.
5. The permittee shall notify the Ohio EPA NEDO if the combined total operation of emissions units P001-P005 while firing natural gas exceeds 27,155 hours during the first 12 months of operation, or any 12 months thereafter. Such reports shall be made within 30 days of becoming aware of any such exceedance.
6. Pursuant to 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 Northeast District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration,

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magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting any continuous opacity 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 be included in the quarterly report.

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

## V. Testing Requirements

### 1. Emission Limitation

5.0 lbs/hour - when gas-firing, and 10.0 lbs/hour - when oil-firing, mass emission rate of Particulates/PM10.

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

### 2. Emission Limitation

Annual Particulate/PM10 emissions shall not exceed 15.1 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

### 3. Emission Limitation

Nitrogen Oxides:

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9.0 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen on a dry basis as a daily average, when gas-firing; and  
42.0 ppmv at 15% oxygen on a dry basis, when oil-firing.

The continuous nitrogen oxide monitoring data shall be used to demonstrate compliance.

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## 4. Emission Limitation

Annual nitrogen oxide emissions shall not exceed 125.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the continuous nitrogen oxides monitoring data and the emissions unit operational records required in Section A.III.

## 5. Emission Limitation

83.0 lbs/hour mass emission rate of carbon monoxide.

The permittee shall conduct, or have conducted, carbon monoxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 10.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

## 6. Emission Limitation

Annual carbon monoxide emissions shall not exceed 143.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

## 7. Emission Limitation

10.0 lbs/hour - when gas-firing, and 11.0 lbs/hour - when oil- firing, mass emission rate of organic compounds.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

## 8. Emission Limitation

Annual organic compound emissions shall not exceed 24.4 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

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9. Emission Limitation

Sulfur dioxide:

0.007 lb/mmbtu actual heat input when gas-firing and 0.3 lb/mmbtu actual heat input when oil-firing.

The fuel sulfur monitoring and recordkeeping data shall be used to demonstrate compliance.

If required, the permittee shall demonstrate compliance with these emission limitations in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6.

10. Emission Limitation

Annual sulfur dioxide emissions shall not exceed 39.9 tons per 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the fuel monitoring and record keeping data and the emissions unit operational records required in Section A.III.

11. Emission Limitation

0.0325 lb/mmbtu, actual heat input, emission rate of sulfuric acid mist, during oil-firing only.

The permittee shall conduct, or have conducted, sulfuric acid mist emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 8.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

12. Emission Limitation

Annual sulfuric acid emissions shall not exceed 4.2 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

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13. Emission Limitation

7.13 E -04 lb/mmbtu, actual heat input, emission rate of formaldehyde, when gas-firing only.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

14. Emission Limitation

Annual formaldehyde emissions shall not exceed 8.5 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

15. The requirements listed below apply to all of the testing requirements of this section.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast District Office within 30 days following completion of the test(s). The

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permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA Northeast District Office.

16. Emission Limitation

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.

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

**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>
Simple Cycle Stationary Combustion Turbine No.2A, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	OAC rule 3745-31-05(A)(3)	<p>When natural gas firing visible particulate emissions from any stack shall not exceed 10 percent opacity as, a six-minute average.</p> <p>When fuel oil firing visible particulate emissions from any stack shall not exceed 20 percent opacity as, a six-minute average.</p> <p>Nitrogen Oxide emissions: 37.0 lbs/hour, when gas-firing; and 191.0 lbs/hour when oil-firing.</p> <p>Sulfur Dioxide emissions: 0.6 lbs/hour, when gas-firing.</p> <p>339.0 lbs/hour, when oil-firing.</p> <p>Formaldehyde emissions when gas-firing: 0.617 lb/hour.</p>

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Sulfuric Acid Mist  
Emissions:  
35.4 lbs/hour.

**2. Additional Terms and Conditions**

**2.a** The hourly emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

**II. Operational Restrictions**

None.

**III. Monitoring and/or Recordkeeping Requirements**

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

Emission Limitation

When natural gas-firing:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

When no. 2 fuel oil-firing:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

None.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**A. State and Federally Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	OAC rule 3745-31-05 Synthetic Minor to avoid PSD rule requirements.
Simple Cycle Stationary Combustion Turbine No. 2B, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	40 CFR Part 52, Section 52.21 and OAC rule 3745-31-10 through OAC rule 3745-31-20.	OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements
		OAC rule 3745-31-05(D) Synthetic Minor to avoid MACT rule requirements
		OAC rule 3745-17-07(A)

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40 CFR Part 75

Applicable Emissions  
Limitations/Control Measures

Particulate/PM10 emissions:  
5.0 lbs/hour, when gas-firing;  
  
10.0 lbs/hour, when oil-firing; and  
  
15.1 tons per rolling 12-month period.

Nitrogen Oxide emissions:  
9 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen on a dry basis, as a daily average, when gas-firing;  
  
42 ppmv at 15% oxygen on a dry basis, when oil-firing; and  
  
125.9 tons per rolling 12-month period.

Carbon Monoxide Emissions:  
83.0 lbs/hour; and  
  
143.9 tons per rolling 12-month period.

Organic Compounds:  
10.0 lbs/hour, when gas-firing;  
  
11.0 lbs/hour, when oil-firing; and  
  
24.4 tons per rolling 12-month period.

Sulfur Dioxide emissions:  
0.007 lb/mmbtu, actual heat input when gas-firing; and  
  
0.3 lb/mmbtu, actual heat input when oil-firing; and  
  
39.9 tons per year, as a rolling

12-month summation combined from emissions units P001-P005.

1,873,239 gallons of no. 2 fuel oil based upon a rolling, 12-month summation combined from emissions units P001-P005.

Sulfuric Acid Mist emissions, occurs during oil-firing only:  
0.0325 lb/mmbtu, actual heat input; and

4.2 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

Formaldehyde emissions when gas-firing: 7.13 E -04 lb/mmbtu, actual heat input: and

8.5 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average except as provided by rule.

See Part I, term A.4.

**2. Additional Terms and Conditions**

- 2.a** The listed Particulate/PM10 emissions limits are more stringent than the requirements of OAC rule 3745-17-11(B)(4), they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".

- 2.b** The listed nitrogen oxides emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG and OAC rule 3745-23-06, they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".
- 2.c** The listed sulfur dioxide emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG, they were chosen by the applicant to avoid the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality". This is a synthetic minor PTI for sulfur dioxide emissions.
- 2.d** The listed carbon monoxide emission limits are equivalent to the requirements of OAC rule 3745-21-08(B) which states that all new stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with the best current technology.
- 2.e** The following Best Available Control Technology (BACT) determinations have been made in accordance with the PSD regulations:
- Particulate/PM10 emissions - the BACT determination is the use of only clean burning fuels, natural gas and no. 2 fuel oil in the very efficient combustion turbines, capable of meeting the above listed emissions limits.
- Nitrogen oxide emissions - the BACT determination is the use of dry low- NOx burners (DNLB) when firing natural gas and water injection into the combustion zone when fuel oil firing, and the ppmv NOx levels as denoted in Part III.A.I.1.
- Carbon monoxide emissions - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.
- Organic compounds - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.
- 2.f** The above annual sulfur dioxide emission limit makes this a synthetic minor PTI for sulfur dioxide emissions and exempts emissions units P001-P005 from the requirements of the PSD regulations.
- 2.g** The above annual formaldehyde emission limit makes this a synthetic minor PTI for formaldehyde emissions and exempts emissions units P001-P005 from the requirements of OAC rule 3745-31-28, the major MACT source review rule.

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- 2.h** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05, for sulfur dioxide emissions is the use of natural gas as the primary fuel and no. 2 fuel oil as a limited use back-up fuel, and the lb/mmbtu as denoted in Part III.AI.1.

- 2.i** The permittee shall install and operate systems to monitor and record and report emissions of NOx in accordance with this permit, in lieu of the following Subpart GG requirements:

Section 60.334(a) continuous monitoring system to monitor and record fuel consumption and the ratio of water to fuel being fired in each turbine.

Section 60.334(c) excess emissions reporting.

**II. Operational Restrictions**

1. The sulfur content of the no. 2 fuel oil fired in emissions units P001-P005 shall not exceed 0.3% sulfur, by weight.
2. To maintain compliance with the above sulfur dioxide emission limit the permittee shall restrict the usage of no. 2 fuel oil in emissions units P001-P005 to 1,312,723.5 gallons per rolling consecutive 12 month period. This limit is equivalent to the above annual SO2 emission limit of 39.9 tons combined for emissions units P001-P005.

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual fuel oil usage limitation shall be based on a rolling, 12-month summation.

The permittee may fire a greater volume of no. 2 fuel oil than is specified above if said fuel oil contains less than 0.3% sulfur, by weight, as long as the permittee maintains compliance with the annual SO2 limit of 39.9 tons. If lower sulfur no. 2 fuel oil is fired, the permittee shall calculate the resulting monthly SO2 emission rate on a daily basis. The formula for calculating the monthly SO2 emission rate, in tons, is listed below.

3. To maintain compliance with the above annual formaldehyde emission limit the permittee shall restrict the combined total operation of emissions units P001-P005 while firing natural gas to 27,155 hours per rolling 12 month period.

To ensure Federal enforceability during the first 12 months of operation of emissions units P001-P005, while natural gas-firing, the permittee shall not exceed the combined total operational limits listed for the specified time periods in the following table:

<b>MONTHS</b>	<b>OPERATIONAL LIMITS IN HOURS</b>
1	3,600
1 - 2	7,200
1 - 3	10,800
1 - 4	14,400

1 - 5	16,000
1 - 6	17,500
1 - 7	19,000
1 - 8	20,500
1 - 9	23,000
1 - 10	24,500
1 - 11	26,000
1 - 12	27,155

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual operating hours limitation, while natural gas-firing, shall be based on a rolling, 12-month summation of the operating hours, while natural gas-firing.

4. The permittee shall install and operate a water injection system on each combustion turbine for the control of nitrogen oxide emissions during no. 2 fuel oil firing, only.

### III. Monitoring and/or Recordkeeping Requirements

1. Statement of Certification - NO<sub>x</sub> Monitoring
  - a. Prior to the installation of the continuous **NO<sub>x</sub>** monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 75 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 40 CFR Part 75. Personnel from the Ohio EPA Northeast 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 Northeast District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Northeast District Office and the Ohio EPA, Central Office. Certification of the continuous **NO<sub>x</sub>** monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of 40 CFR Part 75.
  - c. The permittee shall operate and maintain existing equipment to continuously monitor and record **NO<sub>x</sub>** from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.
  - d. The permittee shall maintain records of all data obtained by the continuous **NO<sub>x</sub>**

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monitoring system including, but not limited to, parts per million  $\text{NO}_x$  on an instantaneous (one-minute) basis, emissions of  $\text{NO}_x$  in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

- e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous  $\text{NO}_x$  monitoring system designed to ensure continuous valid and representative readings of  $\text{NO}_x$  emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous  $\text{NO}_x$  monitoring system must be kept on site and available for inspection during regular office hours.
2. In accordance with Subpart GG, Section 60.334(b), the permittee shall monitor the sulfur content of the fuel being fired in the turbine. The frequency of determination of this value shall be as follows:
 

If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. The permittee may develop custom schedules for 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 Administrator before they can be used to comply with paragraph (b) of Section 60.334.
  3. The permittee shall determine fuel sulfur content in accordance with the requirements of Subpart GG, Section 60.335(d) and (e).
  4. The permittee shall keep daily records of the following information:
    - a. the combined total amount of no. 2 fuel oil burned, in gallons, in emissions units P001-P005;
    - b. the rolling 12-month summation of the no. 2 fuel oil usage, in gallons;
    - c. the amount of natural gas burned, in cubic feet;
    - d. the rolling 12-month summation of the sulfur dioxide emissions, in tons, for emissions units P001-P005;
    - e. the number of hours the emissions unit is in operation when combusting no. 2 fuel oil; and
    - f. the number of hours the emissions units is in operation when combusting natural gas.
  5. If the permittee fires no. 2 fuel oil with a sulfur content of less than 0.3% sulfur, by weight, the permittee shall calculate the resulting monthly  $\text{SO}_2$  emissions on a daily basis as follows:

Gallons oil fired/day X 142(S)/1,000 gallons oil = lbs.  $\text{SO}_2$  emissions/day

where S = percent sulfur content, by weight, of the fuel oil.

To determine the monthly emission rate of SO<sub>2</sub>, the permittee shall then sum the daily calculated emission rates for each day of the calendar month that emissions units P001-P005 fired no. 2 fuel oil and convert that sum to tons per month.

6. Statement of Certification - Opacity Monitor

Prior to the installation of the continuous opacity 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 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the start up of this emissions unit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity 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 1 including section 5.1.9 (mandatory).

Within 60 days of the effective date of this permit or modification to the system, the permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast 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.

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

2. The permittee shall notify the Ohio EPA Northeast District Office if the combined total amount of no. 2 fuel oil with a sulfur content of 0.3%, by weight, burnt in emissions units P001-P005 exceeds the above gallons per year limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
3. The permittee shall notify the Ohio EPA Northeast District Office if the sulfur content of the fuel oil burnt in emissions units P001-P005 exceeds the above limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
4. The permittee shall notify the Ohio EPA NEDO if the combined total calculated sulfur dioxide emission for the first 12 months of operation, or any 12 months thereafter, exceeds 39.9 tons. Such reports shall be made within 30 days of becoming aware of any such exceedance.
5. The permittee shall notify the Ohio EPA NEDO if the combined total operation of emissions units P001-P005 while firing natural gas exceeds 27,155 hours during the first 12 months of operation, or any 12 months thereafter. Such reports shall be made within 30 days of becoming aware of any such exceedance.
6. Pursuant to 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 Northeast District Office

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documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting any continuous opacity 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 be included in the quarterly report.

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

## V. Testing Requirements

1. Emission Limitation  
5.0 lbs/hour - when gas-firing, and 10.0 lbs/hour - when oil-firing, mass emission rate of Particulates/PM10.

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

2. Emission Limitation

Annual Particulate/PM10 emissions shall not exceed 15.1 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

3. Emission Limitation

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## Nitrogen Oxides:

9.0 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen on a dry basis as a daily average, when gas-firing; and  
42.0 ppmv at 15% oxygen on a dry basis, when oil-firing.

The continuous nitrogen oxide monitoring data shall be used to demonstrate compliance.

## 4. Emission Limitation

Annual nitrogen oxide emissions shall not exceed 125.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the continuous nitrogen oxides monitoring data and the emissions unit operational records required in Section A.III.

## 5. Emission Limitation

83.0 lbs/hour mass emission rate of carbon monoxide.

The permittee shall conduct, or have conducted, carbon monoxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 10.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

## 6. Emission Limitation

Annual carbon monoxide emissions shall not exceed 143.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

## 7. Emission Limitation

10.0 lbs/hour - when gas-firing, and 11.0 lbs/hour - when oil-firing, mass emission rate of organic compounds.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

## 8. Emission Limitation

Annual organic compound emissions shall not exceed 24.4 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

9. Emission Limitation

Sulfur dioxide:

0.007 lb/mmbtu actual heat input when gas-firing and 0.3 lb/mmbtu actual heat input when oil-firing.

The fuel sulfur monitoring and recordkeeping data shall be used to demonstrate compliance.

If required, the permittee shall demonstrate compliance with these emission limitations in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6.

10. Emission Limitation

Annual sulfur dioxide emissions shall not exceed 39.9 tons per 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the fuel monitoring and record keeping data and the emissions unit operational records required in Section A.III.

11. Emission Limitation

0.0325 lb/mmbtu, actual heat input, emission rate of sulfuric acid mist, during oil-firing only.

The permittee shall conduct, or have conducted, sulfuric acid mist emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 8.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

12. Emission Limitation

Annual sulfuric acid emissions shall not exceed 4.2 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

13. Emission Limitation

7.13 E -04 lb/mmbtu, actual heat input, emission rate of formaldehyde, when gas-firing only.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

14. Emission Limitation

Annual formaldehyde emissions shall not exceed 8.5 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

15. The requirements listed below apply to all of the testing requirements of this section.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast

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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 appropriate Ohio EPA Northeast District Office.

16. Emission Limitation

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.

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

**VI. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>Simple Cycle Stationary Combustion Turbine No.2B, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>When natural gas firing visible particulate emissions from any stack shall not exceed 10 percent opacity as, a six-minute average.</p> <p>When fuel oil firing visible particulate emissions from any stack shall not exceed 20 percent opacity as, a six-minute average.</p> <p>Nitrogen Oxide emissions: 37.0 lbs/hour, when gas-firing; and 191.0 lbs/hour when oil-firing.</p> <p>Sulfur Dioxide emissions: 0.6 lbs/hour, when gas-firing;  339.0 lbs/hour, when oil-firing.</p>

Formaldehyde  
emissions when  
gas-firing:  
0.617 lb/hour.

Sulfuric Acid Mist  
Emissions:  
35.4 lbs/hour.

## **2. Additional Terms and Conditions**

- 2.a** The hourly emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## **II. Operational Restrictions**

None.

## **III. Monitoring and/or Recordkeeping Requirements**

None.

## **IV. Reporting Requirements**

None.

## **V. Testing Requirements**

Emission Limitation

When natural gas-firing:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

When no. 2 fuel oil-firing:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1)..

**VI. Miscellaneous Requirements**

None.

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**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]**

**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>	
Simple Cycle Stationary Combustion Turbine No. 3A, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	40 CFR Part 52, Section 52.21 and OAC rule 3745-31-10 through OAC rule 3745-31-20.	OAC rule 3745-31-05 Synthetic Minor to avoid PSD rule requirements.
		OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements

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OAC rule 3745-31-05(D) Synthetic Minor to avoid MACT rule requirements	Applicable Emissions <u>Limitations/Control Measures</u>	0.007 lb/mmbtu, actual heat input when gas-firing; and
OAC rule 3745-17-07(A)	Particulate/PM10 emissions: 5.0 lbs/hour, when gas-firing;  10.0 lbs/hour, when oil-firing; and  15.1 tons per rolling 12-month period.	0.3 lb/mmbtu, actual heat input when oil-firing; and 39.9 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.
40 CFR Part 75	Nitrogen Oxide emissions: 9 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen on a dry basis, as a daily average, when gas-firing;  42 ppmv at 15% oxygen on a dry basis, when oil-firing; and  125.9 tons per rolling 12-month period.  Carbon Monoxide Emissions: 83.0 lbs/hour; and  143.9 tons per rolling 12-month period.  Organic Compounds: 10.0 lbs/hour, when gas-firing;  11.0 lbs/hour, when oil-firing; and  24.4 tons per rolling 12-month period.  Sulfur Dioxide emissions:	1,873,239 gallons of no. 2 fuel oil based upon a rolling, 12-month summation combined from emissions units P001-P005.  Sulfuric Acid Mist emissions, occurs during oil-firing only: 0.0325 lb/mmbtu, actual heat input; and  4.2 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.  Formaldehyde emissions when gas-firing: 7.13 E -04 lb/mmbtu, actual heat input: and  8.5 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.  Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average except as provided by rule.  See Part I, term A.4.

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**2. Additional Terms and Conditions**

- 2.a** The listed Particulate/PM10 emissions limits are more stringent than the requirements of OAC rule 3745-17-11(B)(4), they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".
- 2.b** The listed nitrogen oxides emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG and OAC rule 3745-23-06, they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".
- 2.c** The listed sulfur dioxide emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG, they were chosen by the applicant to avoid the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality". This is a synthetic minor PTI for sulfur dioxide emissions.
- 2.d** The listed carbon monoxide emission limits are equivalent to the requirements of OAC rule 3745-21-08(B) which states that all new stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with the best current technology.
- 2.e** The following Best Available Control Technology (BACT) determinations have been made in accordance with the PSD regulations:

Particulate/PM10 emissions - the BACT determination is the use of only clean burning fuels, natural gas and no. 2 fuel oil in the very efficient combustion turbines, capable of meeting the above listed emissions limits.

Nitrogen oxide emissions - the BACT determination is the use of dry low- NOx burners (DNLB) when firing natural gas and water injection into the combustion zone when fuel oil firing, and the ppmv NOx levels as denoted in Part III.A.I.1.

Carbon monoxide emissions - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.

Organic compounds - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.

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- 2.f** The above annual sulfur dioxide emission limit makes this a synthetic minor PTI for sulfur dioxide emissions and exempts emissions units P001-P005 from the requirements of the PSD regulations.
- 2.g** The above annual formaldehyde emission limit makes this a synthetic minor PTI for formaldehyde emissions and exempts emissions units P001-P005 from the requirements of OAC rule 3745-31-28 the major MACT source review rule.
- 2.h** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05, for sulfur dioxide emissions is the use of natural gas as the primary fuel and no. 2 fuel oil as a limited use back-up fuel, and the lb/mmbtu as denoted in Part III.AI.1.
- 2.i** The permittee shall install and operate systems to monitor and record and report emissions of NOx in accordance with this permit, in lieu of the following Subpart GG requirements:

Section 60.334(a) continuous monitoring system to monitor and record fuel consumption and the ratio of water to fuel being fired in each turbine.

Section 60.334(c) excess emissions reporting.

## II. Operational Restrictions

1. The sulfur content of the no. 2 fuel oil fired in emissions units P001-P005 shall not exceed 0.3% sulfur, by weight.
2. To maintain compliance with the above sulfur dioxide emission limit the permittee shall restrict the usage of no. 2 fuel oil in emissions units P001-P005 to 1,312,723.5 gallons per rolling consecutive 12 month period. This limit is equivalent to the above annual SO<sub>2</sub> emission limit of 39.9 tons combined for emissions units P001-P005.

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual fuel oil usage limitation shall be based on a rolling, 12-month summation.

The permittee may fire a greater volume of no. 2 fuel oil than is specified above if said fuel oil contains less than 0.3% sulfur, by weight, as long as the permittee maintains compliance with the annual SO<sub>2</sub> limit of 39.9 tons. If lower sulfur no. 2 fuel oil is fired, the permittee shall calculate the resulting monthly SO<sub>2</sub> emission rate on a daily basis. The formula for calculating the monthly SO<sub>2</sub> emission rate, in tons, is listed below.

3. To maintain compliance with the above annual formaldehyde emission limit the permittee shall restrict the combined total operation of emissions units P001-P005 while firing natural gas to 27,155 hours per rolling 12 month period.

To ensure Federal enforceability during the first 12 months of operation of emissions units P001-P005, while natural gas-firing, the permittee shall not exceed the combined total operational limits listed for the specified time periods in the following table:

MONTHS	OPERATIONAL LIMITS IN HOURS
1	3,600
1 - 2	7,200
1 - 3	10,800
1 - 4	14,400
1 - 5	16,000
1 - 6	17,500
1 - 7	19,000
1 - 8	20,500
1 - 9	23,000
1 - 10	24,500
1 - 11	26,000
1 - 12	27,155

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual operating hours limitation, while natural gas-firing, shall be based on a rolling, 12-month summation of the operating hours, while natural gas-firing.

4. The permittee shall install and operate a water injection system on each combustion turbine for the control of nitrogen oxide emissions during no. 2 fuel oil firing, only.

### III. Monitoring and/or Recordkeeping Requirements

1. Statement of Certification - NO<sub>x</sub> Monitoring
  - a. Prior to the installation of the continuous **NO<sub>x</sub>** monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 75, 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 40 CFR Part 75. Personnel from the Ohio EPA Ohio EPA Northeast 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 Northeast District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Northeast District Office and the Ohio EPA, Central Office. Certification of the continuous **NO<sub>x</sub>** monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of 40 CFR Part 75.
  - c. The permittee shall operate and maintain existing equipment to continuously monitor and record **NO<sub>x</sub>** from this emissions unit in units of the applicable standard. Such continuous

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monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

- d. The permittee shall maintain records of all data obtained by the continuous **NO<sub>x</sub>** monitoring system including, but not limited to, parts per million **NO<sub>x</sub>** on an instantaneous (one-minute) basis, emissions of **NO<sub>x</sub>** in units of the applicable standard in the appropriate averaging

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period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

- e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous  $NO_x$  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 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.
2. In accordance with Subpart GG, Section 60.334(b), the permittee shall monitor the sulfur content of the fuel being fired in the turbine. The frequency of determination of this value shall be as follows:

If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. The permittee may develop custom schedules for 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 Administrator before they can be used to comply with paragraph (b) of Section 60.334.
  3. The permittee shall determine fuel sulfur content in accordance with the requirements of Subpart GG, Section 60.335(d) and (e).
  4. The permittee shall keep daily records of the following information:
    - a. the combined total amount of no. 2 fuel oil burned, in gallons, in emissions units P001-P005;
    - b. the rolling 12-month summation of the no. 2 fuel oil usage, in gallons;
    - c. the amount of natural gas burned, in cubic feet;
    - d. the rolling 12-month summation of the sulfur dioxide emissions, in tons, for emissions units P001-P005;
    - e. the number of hours the emissions unit is in operation when combusting no. 2 fuel oil; and
    - f. the number of hours the emissions units is in operation when combusting natural gas.
  5. If the permittee fires no. 2 fuel oil with a sulfur content of less than 0.3% sulfur, by weight, the permittee shall calculate the resulting monthly SO<sub>2</sub> emissions on a daily basis as follows:

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Gallons oil fired/day X 142(S)/1,000 gallons oil = lbs. SO<sub>2</sub> emissions/day

where S = percent sulfur content, by weight, of the fuel oil.

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To determine the monthly emission rate of SO<sub>2</sub>, the permittee shall then sum the daily calculated emission rates for each day of the calendar month that emissions units P001-P005 fired no. 2 fuel oil and convert that sum to tons per month.

6. Statement of Certification - Opacity Monitor

Prior to the installation of the continuous opacity 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 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the start up of this emissions unit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity 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 1 including section 5.1.9 (mandatory).

Within 60 days of the effective date of this permit or modification to the system, the permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

#### IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast 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.

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

2. The permittee shall notify the Ohio EPA Northeast District Office if the combined total amount of no. 2 fuel oil with a sulfur content of 0.3%, by weight, burnt in emissions units P001-P005 exceeds the above gallons per year limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
3. The permittee shall notify the Ohio EPA Northeast District Office if the sulfur content of the fuel oil burnt in emissions units P001-P005 exceeds the above limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
4. The permittee shall notify the Ohio EPA NEDO if the combined total calculated sulfur dioxide emission for the first 12 months of operation, or any 12 months thereafter, exceeds 39.9 tons. Such reports shall be made within 30 days of becoming aware of any such exceedance.
5. The permittee shall notify the Ohio EPA NEDO if the combined total operation of emissions units P001-P005 while firing natural gas exceeds 27,155 hours during the first 12 months of operation, or any 12 months thereafter. Such reports shall be made within 30 days of becoming aware of any such exceedance.
6. Pursuant to 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 Northeast District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

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The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting any continuous opacity 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 be included in the quarterly report.

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

## V. Testing Requirements

### 1. Emission Limitation

5.0 lbs/hour - when gas-firing, and 10.0 lbs/hour - when oil-firing, mass emission rate of Particulates/PM10.

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

### 2. Emission Limitation

Annual Particulate/PM10 emissions shall not exceed 15.1 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

### 3. Emission Limitation

Nitrogen Oxides:

9.0 ppmv at 15% oxygen on a dry basis, when gas-firing; and  
42.0 ppmv at 15% oxygen on a dry basis, when oil-firing.

The continuous nitrogen oxide monitoring data shall be used to demonstrate compliance.

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## 4. Emission Limitation

Annual nitrogen oxide emissions shall not exceed 125.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the continuous nitrogen oxides monitoring data and the emissions unit operational records required in Section A.III.

## 5. Emission Limitation

53.0 lbs/hour mass emission rate of carbon monoxide.

The permittee shall conduct, or have conducted, carbon monoxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 10.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

## 6. Emission Limitation

Annual carbon monoxide emissions shall not exceed 143.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

## 7. Emission Limitation

10.0 lbs/hour - when gas-firing, and 11.0 lbs/hour - when oil- firing, mass emission rate of organic compounds.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

## 8. Emission Limitation

Annual organic compound emissions shall not exceed 24.4 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

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9. Emission Limitation

Sulfur dioxide:

0.007 lb/mmbtu actual heat input when gas-firing and 0.3 lb/mmbtu actual heat input when oil-firing.

The fuel sulfur monitoring and recordkeeping data shall be used to demonstrate compliance.

If required, the permittee shall demonstrate compliance with these emission limitations in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6.

10. Emission Limitation

Annual sulfur dioxide emissions shall not exceed 39.9 tons per 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the fuel monitoring and record keeping data and the emissions unit operational records required in Section A.III.

11. Emission Limitation

0.0325 lb/mmbtu, actual heat input, emission rate of sulfuric acid mist, during oil-firing only.

The permittee shall conduct, or have conducted, sulfuric acid mist emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 8.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

12. Emission Limitation

Annual sulfuric acid mist emissions shall not exceed 4.2 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

13. Emission Limitation

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7.13 E -04 lb/mmbtu, actual heat input, emission rate of formaldehyde, when gas-firing only.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

14. Emission Limitation

Annual formaldehyde emissions shall not exceed 8.5 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

15. The requirements listed below apply to all of the testing requirements of this section.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast 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 appropriate Ohio EPA Northeast District Office.

16. Emission Limitation

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.

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

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**VI. Miscellaneous Requirements**

None.

**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>
<p>Operations, Property, <u>and/or Equipment</u></p> <p>Simple Cycle Stationary Combustion Turbine No.3A, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.</p>	OAC rule 3745-31-05	<p>When natural gas firing visible particulate emissions from any stack shall not exceed 10 percent opacity as, a six-minute average.</p> <p>When fuel oil firing visible particulate emissions from any stack shall not exceed 20 percent opacity as, a six-minute average.</p> <p>.</p> <p>Nitrogen Oxide emissions: 37.0 lbs/hour, when gas-firing; and 191.0 lbs/hour when oil-firing.</p> <p>Sulfur Dioxide emissions: 0.6 lbs/hour, when gas-firing;  339.0 lbs/hour, when oil-firing.</p>

Formaldehyde  
emissions when  
gas-firing:  
0.617 lb/hour.

Sulfuric Acid Mist  
Emissions:  
35.4 lbs/hour.

## 2. Additional Terms and Conditions

- 2.a The hourly emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

None.

## III. Monitoring and/or Recordkeeping Requirements

None.

## IV. Reporting Requirements

None.

## V. Testing Requirements

Emission Limitation

When natural gas-firing:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

When no. 2 fuel oil-firing:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

None.

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

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>	
Simple Cycle Stationary Combustion Turbine No. 3B, the nominal power production rating is 85 MW, the heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	40 CFR Part 52, Section 52.21 and OAC rule 3745-31-10 through OAC rule 3745-31-20.	OAC rule 3745-31-05 Synthetic Minor to avoid PSD rule requirements.
		OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements
		OAC rule 3745-31-05(D) Synthetic Minor to avoid MACT rule

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requirements

Applicable Emissions  
Limitations/Control Measures

0.3 lb/mmbtu, actual heat input when oil-firing; and  
39.9 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

OAC rule 3745-17-07(A)

Particulate/PM10 emissions:  
5.0 lbs/hour, when gas-firing;

1,873,239 gallons of no. 2 fuel oil based upon a rolling, 12-month summation combined from emissions units P001-P005.

40 CFR Part 75

10.0 lbs/hour, when oil-firing; and  
15.1 tons per rolling 12-month period.

Nitrogen Oxide emissions:  
9 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen as a daily average, when gas-firing;

Sulfuric Acid Mist emissions, occurs during oil-firing only:  
0.0325 lb/mmbtu, actual heat input; and  
4.2 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

42 ppmv at 15% oxygen on a dry basis, when oil-firing; and

125.9 tons per rolling 12-month period.

Formaldehyde emissions when gas-firing: 7.13 E -04 lb/mmbtu, actual heat input; and

Carbon Monoxide Emissions:  
83.0 lbs/hour; and

8.5 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

143.9 tons per rolling 12-month period.

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average except as provided by rule.

Organic Compounds:  
10.0 lbs/hour, when gas-firing;

See Part I, term A.4.

11.0 lbs/hour, when oil-firing; and

24.4 tons per rolling 12-month period.

Sulfur Dioxide emissions:  
0.007 lb/mmbtu, actual heat input when gas-firing; and

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**2. Additional Terms and Conditions**

**2.a** The listed Particulate/PM10 emissions limits are more stringent than the requirements of OAC rule 3745-17-11(B)(4), they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".

**2.b** The listed nitrogen oxides emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG and OAC rule 3745-23-06, they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".

**2.c** The listed sulfur dioxide emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG, they were chosen by the applicant to avoid the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality". This is a synthetic minor PTI for sulfur dioxide emissions.

**2.d** The listed carbon monoxide emission limits are equivalent to the requirements of OAC rule 3745-21-08(B) which states that all new stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with the best current technology.

**2.e** The following Best Available Control Technology (BACT) determinations have been made in accordance with the PSD regulations:

Particulate/PM10 emissions - the BACT determination is the use of only clean burning fuels, natural gas and no. 2 fuel oil in the very efficient combustion turbines, capable of meeting the above listed emissions limits.

Nitrogen oxide emissions - the BACT determination is the use of dry low- NOx burners (DNLB) when firing natural gas and water injection into the combustion zone when fuel oil firing, and the ppmv NOx levels as denoted in Part III.A.I.1.

Carbon monoxide emissions - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.

Organic compounds - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.

**2.f** The above annual sulfur dioxide emission limit makes this a synthetic minor PTI for sulfur

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dioxide emissions and exempts emissions units P001-P005 from the requirements of the PSD regulations.

**2.g** The above annual formaldehyde emission limit makes this a synthetic minor PTI for formaldehyde emissions and exempts emissions units P001-P005 from the requirements of OAC rule 3745-31-28 the major MACT source review rule.

**2.h** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05, for sulfur dioxide emissions is the use of natural gas as the primary fuel and no. 2 fuel oil as a limited use back-up fuel, and the lb/mmbtu as denoted in Part III.AI.1.

**2.i** The permittee shall install and operate systems to monitor and record and report emissions of NOx in accordance with this permit, in lieu of the following Subpart GG requirements:

Section 60.334(a) continuous monitoring system to monitor and record fuel consumption and the ratio of water to fuel being fired in each turbine.

Section 60.334(c) excess emissions reporting.

## II. Operational Restrictions

1. The sulfur content of the no. 2 fuel oil fired in emissions units P001-P005 shall not exceed 0.3% sulfur, by weight.
2. To maintain compliance with the above sulfur dioxide emission limit the permittee shall restrict the usage of no. 2 fuel oil in emissions units P001-P005 to 1,312,723.5 gallons per rolling consecutive 12 month period. The formula for calculating the monthly SO<sub>2</sub> emission rate, in tons, is listed below. This limit is equivalent to the above annual SO<sub>2</sub> emission limit of 39.9 tons combined for emissions units P001-P005.

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual fuel oil usage limitation shall be based on a rolling, 12-month summation.

The permittee may fire a greater volume of no. 2 fuel oil than is specified above if said fuel oil contains less than 0.3% sulfur, by weight, as long as the permittee maintains compliance with the annual SO<sub>2</sub> limit of 39.9 tons. If lower sulfur no. 2 fuel oil is fired, the permittee shall calculate the resulting monthly SO<sub>2</sub> emission rate on a daily basis. The formula for calculating the monthly SO<sub>2</sub> emission rate, in tons, is listed below.

3. To maintain compliance with the above annual formaldehyde emission limit the permittee shall restrict the combined total operation of emissions units P001-P005 while firing natural gas to 27,155 hours per rolling 12 month period.

To ensure Federal enforceability during the first 12 months of operation of emissions units P001-P005, while natural gas-firing, the permittee shall not exceed the combined total operational limits listed for the specified time periods in the following table:

MONTHS	OPERATIONAL LIMITS IN HOURS
1	3,600
1 - 2	7,200
1 - 3	10,800
1 - 4	14,400
1 - 5	16,000
1 - 6	17,500
1 - 7	19,000
1 - 8	20,500
1 - 9	23,000
1 - 10	24,500
1 - 11	26,000
1 - 12	27,155

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual operating hours limitation, while natural gas-firing, shall be based on a rolling, 12-month summation of the operating hours, while natural gas-firing.

4. The permittee shall install and operate a water injection system on each combustion turbine for the control of nitrogen oxide emissions during no. 2 fuel oil firing, only.

### III. Monitoring and/or Recordkeeping Requirements

1. Statement of Certification - NO<sub>x</sub> Monitoring
  - a. Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 75, 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 40 CFR Part 75. Personnel from the Ohio EPA Northeast 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 Northeast District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Northeast District Office and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of 40 CFR Part 75.
  - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous

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monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

- d. The permittee shall maintain records of all data obtained by the continuous **NO<sub>x</sub>** monitoring system including, but not limited to, parts per million **NO<sub>x</sub>** on an instantaneous (one-minute) basis, emissions of **NO<sub>x</sub>** in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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- 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 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.
2. In accordance with Subpart GG, Section 60.334(b), the permittee shall monitor the sulfur content of the fuel being fired in the turbine. The frequency of determination of this value shall be as follows:
 

If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. The permittee may develop custom schedules for 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 Administrator before they can be used to comply with paragraph (b) of Section 60.334.
  3. The permittee shall determine fuel sulfur content in accordance with the requirements of Subpart GG, Section 60.335(d) and (e).
  4. The permittee shall keep daily records of the following information:
    - a. the combined total amount of no. 2 fuel oil burned, in gallons, in emissions units P001-P005;
    - b. the rolling 12-month summation of the no. 2 fuel oil usage, in gallons;
    - c. the amount of natural gas burned, in cubic feet;
    - d. the rolling 12-month summation of the sulfur dioxide emissions, in tons, for emissions units P001-P005;
    - e. the number of hours the emissions unit is in operation when combusting no. 2 fuel oil; and
    - f. the number of hours the emissions units is in operation when combusting natural gas.
  5. If the permittee fires no. 2 fuel oil with a sulfur content of less than 0.3% sulfur, by weight, the permittee shall calculate the resulting monthly SO<sub>2</sub> emissions on a daily basis as follows:

$$\text{Gallons oil fired/day} \times 142(S)/1,000 \text{ gallons oil} = \text{lbs. SO}_2 \text{ emissions/day}$$

where S = percent sulfur content, by weight, of the fuel oil.

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To determine the monthly emission rate of SO<sub>2</sub>, the permittee shall then sum the daily calculated emission rates for each day of the calendar month that emissions units P001-P005 fired no. 2 fuel oil and convert that sum to tons per month.

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6. Statement of Certification - Opacity Monitor

Prior to the installation of the continuous opacity 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 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the start up of this emissions unit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity 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 1 including section 5.1.9 (mandatory).

Within 60 days of the effective date of this permit or modification to the system, the permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one- minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

**IV. Reporting Requirements**

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to

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the Ohio EPA Northeast 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.

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

2. The permittee shall notify the Ohio EPA Northeast District Office if the combined total amount of no. 2 fuel oil with a sulfur content of 0.3%, by weight, burnt in emissions units P001-P005 exceeds the above gallons per year limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
3. The permittee shall notify the Ohio EPA Northeast District Office if the sulfur content of the fuel oil burnt in emissions units P001-P005 exceeds the above limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
4. The permittee shall notify the Ohio EPA NEDO if the combined total calculated sulfur dioxide emission for the first 12 months of operation, or any 12 months thereafter, exceeds 39.9 tons. Such reports shall be made within 30 days of becoming aware of any such exceedance.
5. The permittee shall notify the Ohio EPA NEDO if the combined total operation of emissions units P001-P005 while firing natural gas exceeds 27,155 hours during the first 12 months of operation, or any 12 months thereafter. Such reports shall be made within 30 days of becoming aware of any such exceedance.
6. Pursuant to 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 Northeast District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting any continuous opacity 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

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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 be included in the quarterly report.

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

**V. Testing Requirements**

1. Emission Limitation

5.0 lbs/hour - when gas-firing, and 10.0 lbs/hour - when oil-firing, mass emission rate of Particulates/PM10.

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

2. Emission Limitation

Annual Particulate/PM10 emissions shall not exceed 15.1 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

3. Emission Limitation

Nitrogen Oxides:

9.0 ppmv at 15% oxygen on a dry basis, when gas-firing; and  
42.0 ppmv at 15% oxygen on a dry basis, when oil-firing.

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The continuous nitrogen oxide monitoring data shall be used to demonstrate compliance.

4. Emission Limitation

Annual nitrogen oxide emissions shall not exceed 125.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the continuous nitrogen oxides monitoring data and the emissions unit operational records required in Section A.III.

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5. Emission Limitation

83.0 lbs/hour mass emission rate of carbon monoxide.

The permittee shall conduct, or have conducted, carbon monoxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 10.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

6. Emission Limitation

Annual carbon monoxide emissions shall not exceed 143.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

7. Emission Limitation

10.0 lbs/hour - when gas-firing, and 11.0 lbs/hour - when oil- firing, mass emission rate of organic compounds.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

8. Emission Limitation

Annual organic compound emissions shall not exceed 24.4 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

9. Emission Limitation

Sulfur dioxide:

0.007 lb/mmbtu actual heat input when gas-firing and 0.3 lb/mmbtu actual heat input when

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oil-firing.

The fuel sulfur monitoring and recordkeeping data shall be used to demonstrate compliance.

If required, the permittee shall demonstrate compliance with these emission limitations in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6.

10. Emission Limitation

Annual sulfur dioxide emissions shall not exceed 39.9 tons per 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the fuel monitoring and record keeping data and the emissions unit operational records required in Section A.III.

11. Emission Limitation

0.0325 lb/mmbtu, actual heat input, emission rate of sulfuric acid mist, during oil-firing only.

The permittee shall conduct, or have conducted, sulfuric acid mist emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 8.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

12. Emission Limitation

Annual sulfuric acid emissions shall not exceed 4.2 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

13. Emission Limitation

7.13 E -04 lb/mmbtu, actual heat input, emission rate of formaldehyde, when gas-firing only.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

Emissions Unit ID: P004

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

14. Emission Limitation

Annual formaldehyde emissions shall not exceed 8.5 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

15. The requirements listed below apply to all of the testing requirements of this section.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast 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 appropriate Ohio EPA Northeast District Office.

16. Emission Limitation

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.

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

## VI. Miscellaneous Requirements

None.

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**B. State Only Enforceable Section**

**I. Applicable Emissions Limitations and/or Control Requirements**

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
<p>Simple Cycle Stationary Combustion Turbine No.3B, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.</p>	<p>OAC rule 3745-31-05(A)(3)</p>	<p>When natural gas firing visible particulate emissions from any stack shall not exceed 10 percent opacity as, a six-minute average.</p> <p>When fuel oil firing visible particulate emissions from any stack shall not exceed 20 percent opacity as, a six-minute average.</p> <p>Nitrogen Oxide emissions: 37.0 lbs/hour, when gas-firing; and 191.0 lbs/hour when oil-firing.</p> <p>Sulfur Dioxide emissions: 0.6 lbs/hour, when gas-firing; 339.0 lbs/hour, when</p>

Emissions Unit ID: P004

oil-firing.

Formaldehyde  
emissions when  
gas-firing:  
0.617 lb/hour.

Sulfuric Acid Mist  
Emissions:  
35.4 lbs/hour.

## 2. Additional Terms and Conditions

- 2.a** The hourly emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## II. Operational Restrictions

None.

## III. Monitoring and/or Recordkeeping Requirements

None.

## IV. Reporting Requirements

None.

## V. Testing Requirements

Emission Limitation

When natural gas-firing:  
Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

When no. 2 fuel oil-firing:  
Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

## VI. Miscellaneous Requirements

None.

**Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S) [Continued]****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>	
Simple Cycle Stationary Combustion Turbine No. 4A, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	40 CFR Part 52, Section 52.21 and OAC rule 3745-31-10 through OAC rule 3745-31-20.	OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements.
		OAC rule 3745-31-05(D) Synthetic Minor to avoid PSD rule requirements
		OAC rule 3745-31-05(D) Synthetic Minor to avoid MACT rule

requirements

OAC rule 3745-17-07(A)

Applicable Emissions  
Limitations/Control Measures

Particulate/PM10 emissions:  
5.0 lbs/hour, when gas-firing;

10.0 lbs/hour, when oil-firing; and

15.1 tons per year.

Nitrogen Oxide emissions:

9 ppmv at 15% oxygen on a dry basis, as a rolling 12-month average and 15 ppmv at 15% oxygen as a daily average, when gas-firing;

42 ppmv at 15% oxygen on a dry basis, when oil-firing; and

125.9 tons per year.

Carbon Monoxide Emissions:

83.0 lbs/hour; and

143.9 tons per year.

Organic Compounds:

10.0 lbs/hour, when gas-firing;

11.0 lbs/hour, when oil-firing; and

24.4 tons per year

Sulfur Dioxide emissions:

0.007 lb/mmbtu, actual heat input when gas-firing; and

0.3 lb/mmbtu, actual heat input when oil-firing; and

39.9 tons per year, as a rolling 12-month summation combined

from emissions units P001-P005.

1,873,239 gallons of no. 2 fuel oil based upon a rolling, 12-month summation combined from emissions units P001-P005.

Sulfuric Acid Mist emissions, occurs during oil-firing only:  
0.0325 lb/mmbtu, actual heat input; and

4.2 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

Formaldehyde emissions when gas-firing: 7.13 E -04 lb/mmbtu, actual heat input; and

8.5 tons per year, as a rolling 12-month summation combined from emissions units P001-P005.

Visible particulate emissions shall not exceed 20% opacity, as a 6-minute average except as provided by rule.

**2. Additional Terms and Conditions**

- 2.a** The listed Particulate/PM10 emissions limits are more stringent than the requirements of OAC rule 3745-17-11(B)(4), they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".
- 2.b** The listed nitrogen oxides emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG and OAC rule 3745-23-06, they were chosen by the applicant to ensure compliance with the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality".

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- 2.c** The listed sulfur dioxide emissions limits are more stringent than the requirements of 40 CFR Part 60, Subpart GG, they were chosen by the applicant to avoid the requirements of OAC rules 3745-31-10 through 3745-31-20 and 40 CFR part 52, Section 52.21 "Prevention of significant deterioration of air quality". This is a synthetic minor PTI for sulfur dioxide emissions.
- 2.d** The listed carbon monoxide emission limits are equivalent to the requirements of OAC rule 3745-21-08(B) which states that all new stationary sources of carbon monoxide shall minimize carbon monoxide emissions by use of the best available control techniques and operating practices in accordance with the best current technology.
- 2.e** The following Best Available Control Technology (BACT) determinations have been made in accordance with the PSD regulations:
- Particulate/PM10 emissions - the BACT determination is the use of only clean burning fuels, natural gas and no. 2 fuel oil in the very efficient combustion turbines, capable of meeting the above listed emissions limits.
- Nitrogen oxide emissions - the BACT determination is the use of dry low- NOx burners (DNLB) when firing natural gas and water injection into the combustion zone when fuel oil firing, and the ppmv NOx levels as denoted in Part III.A.I.1.
- Carbon monoxide emissions - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.
- Organic compounds - the BACT determination is the use of very efficient combustion technology inherent in the design of the combustion turbines.
- 2.f** The above annual sulfur dioxide emission limit makes this a synthetic minor PTI for sulfur dioxide emissions and exempts emissions units P001-P005 from the requirements of the PSD regulations.
- 2.g** The above annual formaldehyde emission limit makes this a synthetic minor PTI for formaldehyde emissions and exempts emissions units P001-P005 from the requirements of OAC rule 3745-31-28 the major MACT source review rule.
- 2.h** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05, for sulfur dioxide emissions is the use of natural gas as the primary fuel and no. 2 fuel oil as a limited use back-up fuel, and the lb/mmbtu as denoted in Part III.AI.1.
- 2.i** The permittee shall install and operate systems to monitor and record and report emissions of NOx in accordance with this permit, in lieu of the following Subpart GG requirements:
- Section 60.334(a) continuous monitoring system to monitor and record fuel consumption and the ratio of water to fuel being fired in each turbine.

Section 60.334(c) excess emissions reporting.

## II. Operational Restrictions

1. The sulfur content of the no. 2 fuel oil fired in emissions units P001-P005 shall not exceed 0.3% sulfur, by weight.
2. To maintain compliance with the above sulfur dioxide emission limit the permittee shall restrict the usage of no. 2 fuel oil in emissions units P001-P005 to 1,312,723.5 gallons per rolling consecutive 12 month period. This limit is equivalent to the above annual SO<sub>2</sub> emission limit of 39.9 tons combined for emissions units P001-P005.

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual fuel oil usage limitation shall be based on a rolling, 12-month summation.

The permittee may fire a greater volume of no. 2 fuel oil than is specified above if said fuel oil contains less than 0.3% sulfur, by weight, as long as the permittee maintains compliance with the annual SO<sub>2</sub> limit of 39.9 tons. If lower sulfur no. 2 fuel oil is fired, the permittee shall calculate the resulting monthly SO<sub>2</sub> emission rate on a daily basis. The formula for calculating the monthly SO<sub>2</sub> emission rate, in tons, is listed below. This limit is equivalent to the above annual SO<sub>2</sub> emission limit of 39.9 tons combined for emissions units P001-P005.

3. To maintain compliance with the above annual formaldehyde emission limit the permittee shall restrict the combined total operation of emissions units P001-P005 while firing natural gas to 27,155 hours per rolling 12 month period.

To ensure Federal enforceability during the first 12 months of operation of emissions units P001-P005, while natural gas-firing, the permittee shall not exceed the combined total operational limits listed for the specified time periods in the following table:

<b>MONTHS</b>	<b>OPERATIONAL LIMITS IN HOURS</b>
1	3,600
1 - 2	7,200
1 - 3	10,800
1 - 4	14,400
1 - 5	16,000
1 - 6	17,500
1 - 7	19,000

1 - 8	20,500
1 - 9	23,000
1 - 10	24,500
1 - 11	26,000
1 - 12	27,155

After the first 12 months following the startup of emissions units P001-P005 compliance with the annual operating hours limitation, while natural gas-firing, shall be based on a rolling, 12-month summation of operating hours, while natural gas-firing.

4. The permittee shall install and operate a water injection system on each combustion turbine for the control of nitrogen oxide emissions during no. 2 fuel oil firing, only.

### III. Monitoring and/or Recordkeeping Requirements

1. Statement of Certification - NO<sub>x</sub> Monitoring
  - a. Prior to the installation of the continuous NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 75, 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 40 CFR Part 75. Personnel from the Ohio EPA Northeast 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 Northeast District Office within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA Northeast District Office and the Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of 40 CFR Part 75.
  - c. The permittee shall operate and maintain existing equipment to continuously monitor and record NO<sub>x</sub> from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.
  - d. The permittee shall maintain records of all data obtained by the continuous NO<sub>x</sub> monitoring system including, but not limited to, parts per million NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of NO<sub>x</sub> in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

- e. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous **NO<sub>x</sub>** monitoring system designed to ensure continuous valid and representative readings of **NO<sub>x</sub>** emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous **NO<sub>x</sub>** monitoring system must be kept on site and available for inspection during regular office hours.
2. In accordance with Subpart GG, Section 60.334(b), the permittee shall monitor the sulfur content of the fuel being fired in the turbine. The frequency of determination of this value shall be as follows:

If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. The permittee may develop custom schedules for 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 Administrator before they can be used to comply with paragraph (b) of Section 60.334.
3. The permittee shall determine fuel sulfur content in accordance with the requirements of Subpart GG, Section 60.335(d) and (e).
4. The permittee shall keep daily records of the following information:
  - a. the combined total amount of no. 2 fuel oil burned, in gallons, in emissions units P001-P005;
  - b. the rolling 12-month summation of the no. 2 fuel oil usage, in gallons;
  - c. the amount of natural gas burned, in cubic feet;
  - d. the rolling 12-month summation of the sulfur dioxide emissions, in tons, for emissions units P001-P005;
  - e. the number of hours the emissions unit is in operation when combusting no. 2 fuel oil; and
  - f. the number of hours the emissions units is in operation when combusting natural gas.
5. If the permittee fires no. 2 fuel oil with a sulfur content of less than 0.3% sulfur, by weight, the permittee shall calculate the resulting monthly SO<sub>2</sub> emissions on a daily basis as follows:

$$\text{Gallons oil fired/day} \times 142(S)/1,000 \text{ gallons oil} = \text{lbs. SO}_2 \text{ emissions/day}$$

where S = percent sulfur content, by weight, of the fuel oil.

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To determine the monthly emission rate of SO<sub>2</sub>, the permittee shall then sum the daily calculated emission rates for each day of the calendar month that emissions units P001-P005 fired no. 2 fuel oil and convert that sum to tons per month.

6. Statement of Certification - Opacity Monitor

Prior to the installation of the continuous opacity 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 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the start up of this emissions unit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity 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 1 including section 5.1.9 (mandatory).

Within 60 days of the effective date of this permit or modification to the system, the permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous opacity monitoring system including, but not limited to, percent opacity on an instantaneous (one-minute) basis, daily zero/span calibration checks, and manual calibration adjustments.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity monitoring system must be kept on site and available for inspection during regular office hours.

**IV. Reporting Requirements**

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to

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the Ohio EPA Northeast 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.

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

2. The permittee shall notify the Ohio EPA Northeast District Office if the combined total amount of no. 2 fuel oil with a sulfur content of 0.3%, by weight, burnt in emissions units P001-P005 exceeds the above gallons per year limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
3. The permittee shall notify the Ohio EPA Northeast District Office if the sulfur content of the fuel oil burnt in emissions units P001-P005 exceeds the above limitation. Such reports shall be made within 30 days of becoming aware of any such exceedance.
4. The permittee shall notify the Ohio EPA NEDO if the combined total calculated sulfur dioxide emission for the first 12 months of operation, or any 12 months thereafter, exceeds 39.9 tons. Such reports shall be made within 30 days of becoming aware of any such exceedance.
5. Pursuant to 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 Northeast District Office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office documenting any continuous opacity 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 be included in the quarterly report.

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

## **V. Testing Requirements**

### 1. Emission Limitation

5.0 lbs/hour - when gas-firing, and 10.0 lbs/hour - when oil-firing, mass emission rate of Particulates/PM10.

The permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Methods 1-5.

### 2. Emission Limitation

Annual Particulate/PM10 emissions shall not exceed 15.1 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

### 3. Emission Limitation

Nitrogen Oxides:  
9.0 ppmv at 15% oxygen on a dry basis, when gas-firing; and  
42.0 ppmv at 15% oxygen on a dry basis, when oil-firing.

The continuous nitrogen oxide monitoring data shall be used to demonstrate compliance.

### 4. Emission Limitation

Annual nitrogen oxide emissions shall not exceed 125.9 tons per year.

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Compliance with this limitation shall be determined based upon the results of the continuous nitrogen oxides monitoring data and the emissions unit operational records required in Section A.III.

5. Emission Limitation

83.0 lbs/hour mass emission rate of carbon monoxide.

The permittee shall conduct, or have conducted, carbon monoxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 10.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

6. Emission Limitation

Annual carbon monoxide emissions shall not exceed 143.9 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

7. Emission Limitation

10.0 lbs/hour - when gas-firing, and 11.0 lbs/hour - when oil- firing, mass emission rate of organic compounds.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

8. Emission Limitation

Annual organic compound emissions shall not exceed 24.4 tons per year.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

9. Emission Limitation

Sulfur dioxide:

0.007 lb/mmbtu actual heat input when gas-firing and 0.3 lb/mmbtu actual heat input when

oil-firing.

The fuel sulfur monitoring and recordkeeping data shall be used to demonstrate compliance.

If required, the permittee shall demonstrate compliance with these emission limitations in accordance with 40 CFR Part 60, Appendix A, Methods 1-4 and 6.

10. Emission Limitation

Annual sulfur dioxide emissions shall not exceed 39.9 tons per 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the fuel monitoring and record keeping data and the emissions unit operational records required in Section A.III.

11. Emission Limitation

0.0325 lb/mmbtu, actual heat input, emission rate of sulfuric acid mist, during oil-firing only.

The permittee shall conduct, or have conducted, sulfuric acid mist emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate in accordance with 40 CFR Part 60, Appendix A, Method 8.

The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

12. Emission Limitation

Annual sulfuric acid emissions shall not exceed 4.2 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

13. Emission Limitation

7.13 E -04 lb/mmbtu, actual heat input, emission rate of formaldehyde, when gas-firing only.

The permittee shall conduct, or have conducted, organic compound emission testing for this emissions unit to demonstrate compliance with both allowable mass emission rates in accordance with 40 CFR Part 60, Appendix A, Method 25A.

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The tests shall be conducted while the emissions unit is operating at or near its maximum capacity.

14. Emission Limitation

Annual formaldehyde emissions shall not exceed 8.5 tons per rolling 12-month rolling summation combined from emissions units P001-P005.

Compliance with this limitation shall be determined based upon the results of the hourly emission rate testing required in section A.V. and the emissions unit operational records required in Section A.III.

15. The requirements listed below apply to all of the testing requirements of this section.

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

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

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA Northeast 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 appropriate Ohio EPA Northeast District Office.

16. Emission Limitation

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average, except as provided by rule.

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

## VI. Miscellaneous Requirements

None.

Emissions Unit ID:**P005**

**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>
Simple Cycle Stationary Combustion Turbine No.4A, the nominal power production rating is 85 MW, the nominal heat input at peak load at ISO standard conditions is 865.7 mmbtu/hour when natural gas firing and 932.9 mmbtu/hour when no. 2 fuel oil firing.	OAC rule 3745-31-05(A)(3)	<p>When natural gas firing visible particulate emissions from any stack shall not exceed 10 percent opacity as, a six-minute average.</p> <p>When fuel oil firing visible particulate emissions from any stack shall not exceed 20 percent opacity as, a six-minute average.</p> <p>Nitrogen Oxide emissions: 37.0 lbs/hour, when gas-firing; and 191.0 lbs/hour when oil-firing.</p> <p>Sulfur Dioxide emissions: 0.6 lbs/hour, when gas-firing; 339.0 lbs/hour, when oil-firing</p>

Formaldehyde  
emissions when  
gas-firing:  
0.617 lb/hour.

Sulfuric Acid Mist  
Emissions:  
35.4 lbs/hour.

## **2. Additional Terms and Conditions**

- 2.a** The hourly emission limitations were established to reflect the potential to emit for this emissions unit. Therefore, it is not necessary to develop record keeping and/or reporting requirements to ensure compliance with these limits.

## **II. Operational Restrictions**

None.

## **III. Monitoring and/or Recordkeeping Requirements**

None.

## **IV. Reporting Requirements**

None.

## **V. Testing Requirements**

Emission Limitation

When natural gas-firing:

Visible particulate emissions shall not exceed 10 percent opacity, as a six-minute average.

When no. 2 fuel oil-firing:

Visible particulate emissions shall not exceed 20 percent opacity, as a six-minute average.

Compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

**VI. Miscellaneous Requirements**

None.