



State of Ohio Environmental Protection Agency

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Columbus, OH 43215

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P.O. Box 1049  
Columbus, OH 43216-1049

**RE: FINAL PERMIT TO INSTALL MODIFICATION**

**CERTIFIED MAIL**

**LORAIN COUNTY**

**Application No: 02-13376**

**Fac ID: 0247080487**

**DATE: 11/17/2004**

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

	<b>TOXIC REVIEW</b>
<b>Y</b>	<b>PSD</b>
<b>Y</b>	<b>SYNTHETIC MINOR</b>
<b>Y</b>	<b>CEMS</b>
	<b>MACT</b>
<b>Subpart GG</b>	<b>NSPS</b>
	<b>NESHAPS</b>
	<b>NETTING</b>
	<b>MAJOR NON-ATTAINMENT</b>
<b>Y</b>	<b>MODELING SUBMITTED</b>
	<b>GASOLINE DISPENSING FACILITY</b>

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

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

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

Sincerely,

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

CC: USEPA

NEDO



FINAL ADMINISTRATIVE MODIFICATION OF PERMIT TO INSTALL 02-13376

Application Number: 02-13376  
Facility ID: 0247080487  
Permit Fee: \$0  
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):  
**Administrative modification of PTI 02-13376, issued on 6/21/00, as a result of an appeal.**

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

## Part I - GENERAL TERMS AND CONDITIONS

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

#### 1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the

previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
- iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

## **2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

## **3. Risk Management Plans**

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

## **4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

## **5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or

condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

## **6. General Requirements**

- a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.
- b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d. This permit does not convey any property rights of any sort, or any exclusive privilege.
- e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

## **7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

## **8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

## 9. Compliance Requirements

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

## 10. Permit To Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or

modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

#### **11. Best Available Technology**

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

#### **12. Air Pollution Nuisance**

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

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

**1. Compliance Requirements**

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

**2. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

**3. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

**4. Termination of Permit To Install**

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

**5. Construction of New Sources(s)**

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

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

**6. Public Disclosure**

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

**7. Applicability**

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

**8. Construction Compliance Certification**

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

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

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

**C. Permit To Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
Particulate/PM10	75.3
Sulfur Dioxide	39.9
Carbon Monoxide	499.9
Nitrogen Oxides	629.92
Volatile Organic Compound	122.2
Sulfuric Acid Mist	4.2
Formaldehyde	8.5

**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 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.**

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
<p>Simple cycle stationary combustion turbine having a nominal power production rating of 85 MW and a nominal heat input, at full load at ISO standard conditions, of 865.7 mmBtu/hour when firing natural gas and 932.9 mmBtu/hour when firing distillate oil (number 1 and number 2 fuel oil, kerosene and diesel fuel, but excluding number 4 fuel oil). (P001 - CT Unit #2)</p>	<p>40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.</p>	<p>When firing natural gas, particulate/PM10** emissions from this emissions unit shall not exceed 5.0 lbs/hour.</p> <p>When firing distillate oil, particulate/PM10** emissions from this emissions unit shall not exceed 10.0 lbs/hour.</p> <p>Particulate/PM10** emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.</p> <p>**The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.</p> <p>When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.</p> <p>When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15%</p>

oxygen on a dry basis, at full load, as a 1-hour average.

See A.I.2.k below.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

See A.I.2.a below.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid PSD rule requirements.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid MACT  
rule requirements

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

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

See A.I.2.b, A.II.1, and A.II.2 below.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

See A.I.2.c and A.II.3 below.

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

See A.I.2.d and A.I.2.e below.

The nitrogen oxides emission limitation specified by this rule is less stringent than the nitrogen oxides emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.

The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitations established pursuant to OAC rule 3745-31-05(C).

40 CFR Part 60, Subpart GG

OAC rule 3745-17-07(A)	See A.I.2.f below.  The visible particulate emission limitations specified by this rule are less stringent than the visible particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-11(B)(4)	The particulate emission limitation specified by this rule is less stringent than the particulate/PM10 emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.
OAC rule 3745-18-06(F)	When firing distillate oil, the sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(C).  When firing natural gas, pursuant to OAC rule 3745-18-06(A), this emissions unit is exempt from the sulfur dioxide emission limitation specified by this rule.
OAC rule 3745-21-08(B)	See A.I.2.g below.
OAC rule 3745-23-06(B)	See A.I.2.h below.

**2. Additional Terms and Conditions**

**2.a** 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 (i.e., natural gas and distillate oil) in the combustion turbine and compliance with specified emission limitations.

Nitrogen oxides emissions - the BACT determination is the use of dry low-nitrogen oxides burners when firing natural gas, water injection into the combustion zone when firing distillate oil, and compliance with the ppm emission limitations.

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

Organic compound emissions - the BACT determination is the use of the combustion technology inherent in the design of the combustion turbine.

- 2.b** The annual sulfur dioxide emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the PSD regulations for this pollutant.
- 2.c** The annual formaldehyde emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the MACT regulations.
- 2.d** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05(A)(3) includes compliance with the specified emission limitations and also includes compliance with the emission limitations and operating requirements specified by 40 CFR Part 52, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(C).
- 2.e** The hourly nitrogen oxides (non-startup and shutdown), sulfur dioxide, formaldehyde, and sulfuric acid mist emission limitations, established pursuant to OAC rule 3745-31-05(A)(3), reflect the potentials to emit for these pollutants for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.f** The installation and operation of systems to continuously monitor and record emissions of NOx and the oxygen content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.

In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for this emissions unit in accordance with this permit.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with

the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

- 2.i "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.
- 2.j "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.
- 2.k If the fuel fired in this emissions unit is switched from distillate oil to natural gas during any operating hour, the permittee shall comply with the distillate oil emission limitation for each such operating hour.

## II. Operational Restrictions

1. The sulfur content of the distillate oil fired in emissions units P001 through P005 shall not exceed 0.3%, by weight.
2. The quantity of distillate oil fired in emissions units P001 through P005, combined, shall not exceed 1,873,239 gallons per rolling, 12-month period.

The permittee may fire a greater quantity of distillate oil than is specified above if the distillate oil contains less than 0.3% sulfur, by weight, and compliance with the annual sulfur dioxide limitation (39.9 tons) is maintained. If distillate oil with a sulfur content less than 0.3% is fired, the permittee shall calculate and record the sulfur dioxide emission rate on a daily basis and use the daily emission rates to determine the total monthly sulfur dioxide emissions.

3. To ensure compliance with the annual formaldehyde emission limitation established pursuant to OAC rule 3745-31-05(C), the total operating hours for emissions units P001 through P005, combined, when firing natural gas, shall not exceed 27,155 hours per rolling, 12-month period.
4. The permittee shall only fire natural gas or distillate oil in this emissions unit.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor and record the nitrogen oxides emissions from this emissions unit in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: ppmvd at 15% oxygen, at full load (as defined in A.I.2.i), as a 1-hour average (when firing natural gas and distillate oil), ppmvd at 15% oxygen, as a rolling, 12-month average (when firing natural gas), lbs/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous nitrogen oxides monitoring system designed to ensure continuous valid and representative readings of nitrogen oxides emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting activities related to the continuous nitrogen oxides monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. The permittee shall monitor and analyze the sulfur content of the fuel being fired in this emissions unit in accordance with the applicable provisions specified in 40 CFR Parts 60.334 and 60.335.

5. The permittee shall maintain records that document the following:
  - a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.
  
6. The permittee shall maintain monthly records that document the following:
  - a. the total amount of distillate oil fired in this emissions unit, in gallons;
  - b. the total amount of distillate oil fired in emissions units P001 through P005, combined, in gallons;
  - c. the rolling, 12-month summation of the distillate oil usage for emissions units P001 through P005, combined, in gallons;
  - d. the total number of hours this emissions unit was in operation and firing natural gas;
  - e. the total number of hours emissions units P001 through P005 were in operation and firing natural gas;
  - f. the rolling, 12-month summation of the total number of hours emissions units P001 through P005, combined, were in operation and firing natural gas;
  - g. the startup and shutdown emissions\* for nitrogen oxides, in tons;
  - h. the total particulate/PM10, nitrogen oxides (including startup and shutdown emissions), carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions\* for this emissions unit, in tons;
  - i. the total particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons;
  - j. the rolling, 12-month summation of the nitrogen oxides (including startup and shutdown emissions) emissions for this emissions unit, in tons; and
  - k. the rolling, 12-month summation of the particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons.

\* The permittee shall use the continuous nitrogen oxides emission monitoring data to determine the nitrogen oxides emissions for these emissions units. During any period when the continuous nitrogen oxides emission monitoring system is not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the rolling, 12-month nitrogen oxides emissions. The permittee shall use the most recent emission test data or specified emission factor(s) to determine the particulate/PM10, carbon monoxide, organic compound, sulfuric acid mist, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the sulfur dioxide emissions for these emissions units.

7. For each day during which the permittee fires a fuel other than natural gas or distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.

#### 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 the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of nitrogen oxides values in excess of the applicable emission limitations specified in the terms and conditions of this permit (15 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average and 9 ppmvd at 15% oxygen, as a rolling, 12-month average) when firing natural gas and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average) when firing distillate oil).

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 nitrogen oxides 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 date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northeast District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. The permittee shall submit quarterly deviation (excursion) reports to the Ohio EPA, Northeast District Office that identify the following:

- a. any time periods when distillate oil with a sulfur content greater than 0.3%, by weight, was fired in emissions units P001 through P005;
- b. all exceedances of the rolling, 12-month distillate oil usage restriction for emissions units P001 through P005, combined, when firing distillate oil with a sulfur content of 0.3%, by weight;
- c. all exceedances of the rolling, 12-month operating hour restriction for emissions units P001 through P005, combined, when firing natural gas;
- d. each day when a fuel other than natural gas or distillate oil was fired in this emissions unit;
- e. all exceedances of the rolling, 12-month nitrogen oxides emission limitation for this emissions unit; and
- f. all exceedances of the rolling, 12-month particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and/or formaldehyde emission limitations for emissions units P001 through P005, combined.

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

## **V. Testing Requirements**

### **1. Emission Limitations:**

When firing natural gas, particulate/PM10 emissions from this emissions unit shall not exceed 5.0 lbs/hour.

When firing distillate oil, particulate/PM10 emissions from this emissions unit shall not exceed 10.0 lbs/hour.

Particulate/PM10 emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.

#### **Applicable Compliance Methods:**

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.0019 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat

input rate when firing distillate oil. The emission factor is based upon the averaged results of the particulate emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

2. Emission Limitations:

When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen on a dry basis, at full load, as a 1-hour average.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the ppmvd at 15% oxygen and startup and shutdown emission limitations shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data and the records required pursuant to Section A.III.

3. Emission Limitations:

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.027 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.004 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III.

4. Emission Limitations:

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.001 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

5. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined using the emission factor of 0.94S lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitation when firing distillate oil may be determined using the emission factor of 1.01S lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitations may also be demonstrated based upon the records required pursuant to Section A.III.

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

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III..

6. Emission Limitations:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance may be determined by using the emission factor of 0.02 lb/mmBtu. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

7. Emission Limitations:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined by using the emission factor of 0.000455 lb/mmBtu. The emission factor is based upon the averaged results of the formaldehyde emission testing conducted for this emissions unit on June 11, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

8. Emission Limitations:

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

Applicable Compliance Methods:

Compliance with these hourly emission limitations may be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

9. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of  $0.94S$  lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of  $1.01S$  lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

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

10. Emission Limitation:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

Applicable Compliance Method:

This emission limitation was established by multiplying the emission factor of 0.00071 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The

emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-3 (4/00).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

11. Emission Limitation:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.02 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

12. Emission Limitations:

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

Applicable Compliance Method:

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

**IV. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>

2. **Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
<p>Simple cycle stationary combustion turbine having a nominal power production rating of 85 MW and a nominal heat input, at full load at ISO standard conditions, of 865.7 mmBtu/hour when firing natural gas and 932.9 mmBtu/hour when firing distillate oil (number 1 and number 2 fuel oil, kerosene and diesel fuel, but excluding number 4 fuel oil). (P001 - CT Unit #2)</p>	<p>40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.</p>	<p>When firing natural gas, particulate/PM10** emissions from this emissions unit shall not exceed 5.0 lbs/hour.</p> <p>When firing distillate oil, particulate/PM10** emissions from this emissions unit shall not exceed 10.0 lbs/hour.</p> <p>Particulate/PM10** emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.</p> <p>**The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.</p> <p>When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.</p> <p>When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15%</p>

oxygen on a dry basis, at full load, as a 1-hour average.

See A.I.2.k below.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

See A.I.2.a below.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid PSD rule requirements.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid MACT  
rule requirements

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

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

See A.I.2.b, A.II.1, and A.II.2 below.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

See A.I.2.c and A.II.3 below.

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

See A.I.2.d and A.I.2.e below.

The nitrogen oxides emission limitation specified by this rule is less stringent than the nitrogen oxides emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.

The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitations established pursuant to OAC rule 3745-31-05(C).

40 CFR Part 60, Subpart GG

OAC rule 3745-17-07(A)	See A.I.2.f below.  The visible particulate emission limitations specified by this rule are less stringent than the visible particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-11(B)(4)	The particulate emission limitation specified by this rule is less stringent than the particulate/PM10 emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.
OAC rule 3745-18-06(F)	When firing distillate oil, the sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(C).  When firing natural gas, pursuant to OAC rule 3745-18-06(A), this emissions unit is exempt from the sulfur dioxide emission limitation specified by this rule.
OAC rule 3745-21-08(B)	See A.I.2.g below.
OAC rule 3745-23-06(B)	See A.I.2.h below.

**2. Additional Terms and Conditions**

**2.a** 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 (i.e., natural gas and distillate oil) in the combustion turbine and compliance with specified emission limitations.

Nitrogen oxides emissions - the BACT determination is the use of dry low-nitrogen oxides burners when firing natural gas, water injection into the combustion zone when firing distillate oil, and compliance with the ppm emission limitations.

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

Organic compound emissions - the BACT determination is the use of the combustion technology inherent in the design of the combustion turbine.

- 2.b** The annual sulfur dioxide emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the PSD regulations for this pollutant.
- 2.c** The annual formaldehyde emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the MACT regulations.
- 2.d** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05(A)(3) includes compliance with the specified emission limitations and also includes compliance with the emission limitations and operating requirements specified by 40 CFR Part 52, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(C).
- 2.e** The hourly nitrogen oxides (non-startup and shutdown), sulfur dioxide, formaldehyde, and sulfuric acid mist emission limitations, established pursuant to OAC rule 3745-31-05(A)(3), reflect the potentials to emit for these pollutants for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.f** The installation and operation of systems to continuously monitor and record emissions of NO<sub>x</sub> and the oxygen content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.  
  
In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for this emissions unit in accordance with this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State

Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.
- 2.i** "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.
- 2.j** "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.
- 2.k** If the fuel fired in this emissions unit is switched from distillate oil to natural gas during any operating hour, the permittee shall comply with the distillate oil emission limitation for each such operating hour.

## **II. Operational Restrictions**

1. The sulfur content of the distillate oil fired in emissions units P001 through P005 shall not exceed 0.3%, by weight.
2. The quantity of distillate oil fired in emissions units P001 through P005, combined, shall not exceed 1,873,239 gallons per rolling, 12-month period.

The permittee may fire a greater quantity of distillate oil than is specified above if the distillate oil contains less than 0.3% sulfur, by weight, and compliance with the annual sulfur dioxide limitation (39.9 tons) is maintained. If distillate oil with a sulfur content less than 0.3% is fired, the permittee shall calculate and record the sulfur dioxide emission rate on a daily basis and use the daily emission rates to determine the total monthly sulfur dioxide emissions.

3. To ensure compliance with the annual formaldehyde emission limitation established pursuant to OAC rule 3745-31-05(C), the total operating hours for emissions units P001 through P005, combined, when firing natural gas, shall not exceed 27,155 hours per rolling, 12-month period.
4. The permittee shall only fire natural gas or distillate oil in this emissions unit.

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

1. The permittee shall operate and maintain equipment to continuously monitor and record the nitrogen oxides emissions from this emissions unit in units of the applicable standards. Such

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: ppmvd at 15% oxygen, at full load (as defined in A.I.2.i), as a 1-hour average (when firing natural gas and distillate oil), ppmvd at 15% oxygen, as a rolling, 12-month average (when firing natural gas), lbs/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous nitrogen oxides monitoring system designed to ensure continuous valid and representative readings of nitrogen oxides emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting activities related to the continuous nitrogen oxides monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. The permittee shall monitor and analyze the sulfur content of the fuel being fired in this emissions unit in accordance with the applicable provisions specified in 40 CFR Parts 60.334 and 60.335.
5. The permittee shall maintain records that document the following:

- a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.
6. The permittee shall maintain monthly records that document the following:
- a. the total amount of distillate oil fired in this emissions unit, in gallons;
  - b. the total amount of distillate oil fired in emissions units P001 through P005, combined, in gallons;
  - c. the rolling, 12-month summation of the distillate oil usage for emissions units P001 through P005, combined, in gallons;
  - d. the total number of hours this emissions unit was in operation and firing natural gas;
  - e. the total number of hours emissions units P001 through P005 were in operation and firing natural gas;
  - f. the rolling, 12-month summation of the total number of hours emissions units P001 through P005, combined, were in operation and firing natural gas;
  - g. the startup and shutdown emissions\* for nitrogen oxides, in tons;
  - h. the total particulate/PM10, nitrogen oxides (including startup and shutdown emissions), carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions\* for this emissions unit, in tons;
  - i. the total particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons;
  - j. the rolling, 12-month summation of the nitrogen oxides (including startup and shutdown emissions) emissions for this emissions unit, in tons; and
  - k. the rolling, 12-month summation of the particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons.

\* The permittee shall use the continuous nitrogen oxides emission monitoring data to determine the nitrogen oxides emissions for these emissions units. During any period when the continuous nitrogen oxides emission monitoring system is not operational, the permittee shall use the

appropriate missing data procedures specified in 40 CFR Part 75 to determine the rolling, 12-month nitrogen oxides emissions. The permittee shall use the most recent emission test data or specified emission factor(s) to determine the particulate/PM10, carbon monoxide, organic compound, sulfuric acid mist, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the sulfur dioxide emissions for these emissions units.

7. For each day during which the permittee fires a fuel other than natural gas or distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.

#### **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 the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of nitrogen oxides values in excess of the applicable emission limitations specified in the terms and conditions of this permit (15 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average and 9 ppmvd at 15% oxygen, as a rolling, 12-month average) when firing natural gas and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average) when firing distillate oil).

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 nitrogen oxides 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 date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northeast District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. The permittee shall submit quarterly deviation (excursion) reports to the Ohio EPA, Northeast District Office that identify the following:
  - a. any time periods when distillate oil with a sulfur content greater than 0.3%, by weight, was fired in emissions units P001 through P005;

- b. all exceedances of the rolling, 12-month distillate oil usage restriction for emissions units P001 through P005, combined, when firing distillate oil with a sulfur content of 0.3%, by weight;
- c. all exceedances of the rolling, 12-month operating hour restriction for emissions units P001 through P005, combined, when firing natural gas;
- d. each day when a fuel other than natural gas or distillate oil was fired in this emissions unit;
- e. all exceedances of the rolling, 12-month nitrogen oxides emission limitation for this emissions unit; and
- f. all exceedances of the rolling, 12-month particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and/or formaldehyde emission limitations for emissions units P001 through P005, combined.

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

## **V. Testing Requirements**

### **1. Emission Limitations:**

When firing natural gas, particulate/PM10 emissions from this emissions unit shall not exceed 5.0 lbs/hour.

When firing distillate oil, particulate/PM10 emissions from this emissions unit shall not exceed 10.0 lbs/hour.

Particulate/PM10 emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.

#### **Applicable Compliance Methods:**

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.0019 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the particulate emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

2. Emission Limitations:

When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen on a dry basis, at full load, as a 1-hour average.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the ppmvd at 15% oxygen and startup and shutdown emission limitations shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data and the records required pursuant to Section A.III.

3. Emission Limitations:

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.015 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III.

4. Emission Limitations:

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.001 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

5. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

**Applicable Compliance Methods:**

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined using the emission factor of 0.94S lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitation when firing distillate oil may be determined using the emission factor of 1.01S lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitations may also be demonstrated based upon the records required pursuant to Section A.III.

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

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III..

**6. Emission Limitations:**

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

**Applicable Compliance Methods:**

Compliance may be determined by using the emission factor of 0.02 lb/mmBtu. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

7. Emission Limitations:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined by using the emission factor of 0.000455 lb/mmBtu. The emission factor is based upon the averaged results of the formaldehyde emission testing conducted for this emissions unit on June 11, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

8. Emission Limitations:

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

Applicable Compliance Methods:

Compliance with these hourly emission limitations may be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

9. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.94S lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 1.01S lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

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

10. Emission Limitation:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

Applicable Compliance Method:

This emission limitation was established by multiplying the emission factor of 0.00071 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-3 (4/00).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

11. Emission Limitation:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.02 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

12. Emission Limitations:

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

Applicable Compliance Method:

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

**IV. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>

2. **Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
<p>Simple cycle stationary combustion turbine having a nominal power production rating of 85 MW and a nominal heat input, at full load at ISO standard conditions, of 865.7 mmBtu/hour when firing natural gas and 932.9 mmBtu/hour when firing distillate oil (number 1 and number 2 fuel oil, kerosene and diesel fuel, but excluding number 4 fuel oil). (P001 - CT Unit #2)</p>	<p>40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.</p>	<p>When firing natural gas, particulate/PM10** emissions from this emissions unit shall not exceed 5.0 lbs/hour.</p> <p>When firing distillate oil, particulate/PM10** emissions from this emissions unit shall not exceed 10.0 lbs/hour.</p> <p>Particulate/PM10** emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.</p> <p>**The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.</p> <p>When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.</p> <p>When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15%</p>

oxygen on a dry basis, at full load, as a 1-hour average.

See A.I.2.k below.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

See A.I.2.a below.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid PSD rule requirements.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid MACT  
rule requirements

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

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

See A.I.2.b, A.II.1, and A.II.2 below.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

See A.I.2.c and A.II.3 below.

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

See A.I.2.d and A.I.2.e below.

The nitrogen oxides emission limitation specified by this rule is less stringent than the nitrogen oxides emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.

The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitations established pursuant to OAC rule 3745-31-05(C).

40 CFR Part 60, Subpart GG

OAC rule 3745-17-07(A)	See A.I.2.f below.  The visible particulate emission limitations specified by this rule are less stringent than the visible particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-11(B)(4)	The particulate emission limitation specified by this rule is less stringent than the particulate/PM10 emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.
OAC rule 3745-18-06(F)	When firing distillate oil, the sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(C).  When firing natural gas, pursuant to OAC rule 3745-18-06(A), this emissions unit is exempt from the sulfur dioxide emission limitation specified by this rule.
OAC rule 3745-21-08(B)	See A.I.2.g below.
OAC rule 3745-23-06(B)	See A.I.2.h below.

**2. Additional Terms and Conditions**

**2.a** 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 (i.e., natural gas and distillate oil) in the combustion turbine and compliance with specified emission limitations.

Nitrogen oxides emissions - the BACT determination is the use of dry low-nitrogen oxides burners when firing natural gas, water injection into the combustion zone when firing distillate oil, and compliance with the ppm emission limitations.

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

Organic compound emissions - the BACT determination is the use of the combustion technology inherent in the design of the combustion turbine.

- 2.b** The annual sulfur dioxide emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the PSD regulations for this pollutant.
- 2.c** The annual formaldehyde emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the MACT regulations.
- 2.d** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05(A)(3) includes compliance with the specified emission limitations and also includes compliance with the emission limitations and operating requirements specified by 40 CFR Part 52, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(C).
- 2.e** The hourly nitrogen oxides (non-startup and shutdown), sulfur dioxide, formaldehyde, and sulfuric acid mist emission limitations, established pursuant to OAC rule 3745-31-05(A)(3), reflect the potentials to emit for these pollutants for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.f** The installation and operation of systems to continuously monitor and record emissions of NO<sub>x</sub> and the oxygen content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.  
  
In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for this emissions unit in accordance with this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State

Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.
- 2.i** "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.
- 2.j** "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.
- 2.k** If the fuel fired in this emissions unit is switched from distillate oil to natural gas during any operating hour, the permittee shall comply with the distillate oil emission limitation for each such operating hour.

## **II. Operational Restrictions**

1. The sulfur content of the distillate oil fired in emissions units P001 through P005 shall not exceed 0.3%, by weight.
2. The quantity of distillate oil fired in emissions units P001 through P005, combined, shall not exceed 1,873,239 gallons per rolling, 12-month period.

The permittee may fire a greater quantity of distillate oil than is specified above if the distillate oil contains less than 0.3% sulfur, by weight, and compliance with the annual sulfur dioxide limitation (39.9 tons) is maintained. If distillate oil with a sulfur content less than 0.3% is fired, the permittee shall calculate and record the sulfur dioxide emission rate on a daily basis and use the daily emission rates to determine the total monthly sulfur dioxide emissions.

3. To ensure compliance with the annual formaldehyde emission limitation established pursuant to OAC rule 3745-31-05(C), the total operating hours for emissions units P001 through P005, combined, when firing natural gas, shall not exceed 27,155 hours per rolling, 12-month period.
4. The permittee shall only fire natural gas or distillate oil in this emissions unit.

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

1. The permittee shall operate and maintain equipment to continuously monitor and record the nitrogen oxides emissions from this emissions unit in units of the applicable standards. Such

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: ppmvd at 15% oxygen, at full load (as defined in A.I.2.i), as a 1-hour average (when firing natural gas and distillate oil), ppmvd at 15% oxygen, as a rolling, 12-month average (when firing natural gas), lbs/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous nitrogen oxides monitoring system designed to ensure continuous valid and representative readings of nitrogen oxides emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting activities related to the continuous nitrogen oxides monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. The permittee shall monitor and analyze the sulfur content of the fuel being fired in this emissions unit in accordance with the applicable provisions specified in 40 CFR Parts 60.334 and 60.335.
5. The permittee shall maintain records that document the following:

- a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.
6. The permittee shall maintain monthly records that document the following:
- a. the total amount of distillate oil fired in this emissions unit, in gallons;
  - b. the total amount of distillate oil fired in emissions units P001 through P005, combined, in gallons;
  - c. the rolling, 12-month summation of the distillate oil usage for emissions units P001 through P005, combined, in gallons;
  - d. the total number of hours this emissions unit was in operation and firing natural gas;
  - e. the total number of hours emissions units P001 through P005 were in operation and firing natural gas;
  - f. the rolling, 12-month summation of the total number of hours emissions units P001 through P005, combined, were in operation and firing natural gas;
  - g. the startup and shutdown emissions\* for nitrogen oxides, in tons;
  - h. the total particulate/PM10, nitrogen oxides (including startup and shutdown emissions), carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions\* for this emissions unit, in tons;
  - i. the total particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons;
  - j. the rolling, 12-month summation of the nitrogen oxides (including startup and shutdown emissions) emissions for this emissions unit, in tons; and
  - k. the rolling, 12-month summation of the particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons.

\* The permittee shall use the continuous nitrogen oxides emission monitoring data to determine the nitrogen oxides emissions for these emissions units. During any period when the continuous nitrogen oxides emission monitoring system is not operational, the permittee shall use the

appropriate missing data procedures specified in 40 CFR Part 75 to determine the rolling, 12-month nitrogen oxides emissions. The permittee shall use the most recent emission test data or specified emission factor(s) to determine the particulate/PM10, carbon monoxide, organic compound, sulfuric acid mist, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the sulfur dioxide emissions for these emissions units.

7. For each day during which the permittee fires a fuel other than natural gas or distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.

#### 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 the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of nitrogen oxides values in excess of the applicable emission limitations specified in the terms and conditions of this permit (15 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average and 9 ppmvd at 15% oxygen, as a rolling, 12-month average) when firing natural gas and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average) when firing distillate oil).

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 nitrogen oxides 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 date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northeast District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. The permittee shall submit quarterly deviation (excursion) reports to the Ohio EPA, Northeast District Office that identify the following:
  - a. any time periods when distillate oil with a sulfur content greater than 0.3%, by weight, was fired in emissions units P001 through P005;

- b. all exceedances of the rolling, 12-month distillate oil usage restriction for emissions units P001 through P005, combined, when firing distillate oil with a sulfur content of 0.3%, by weight;
- c. all exceedances of the rolling, 12-month operating hour restriction for emissions units P001 through P005, combined, when firing natural gas;
- d. each day when a fuel other than natural gas or distillate oil was fired in this emissions unit;
- e. all exceedances of the rolling, 12-month nitrogen oxides emission limitation for this emissions unit; and
- f. all exceedances of the rolling, 12-month particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and/or formaldehyde emission limitations for emissions units P001 through P005, combined.

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

## V. Testing Requirements

### 1. Emission Limitations:

When firing natural gas, particulate/PM10 emissions from this emissions unit shall not exceed 5.0 lbs/hour.

When firing distillate oil, particulate/PM10 emissions from this emissions unit shall not exceed 10.0 lbs/hour.

Particulate/PM10 emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.

#### Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.0019 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the particulate emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

2. Emission Limitations:

When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen on a dry basis, at full load, as a 1-hour average.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the ppmvd at 15% oxygen and startup and shutdown emission limitations shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data and the records required pursuant to Section A.III.

3. Emission Limitations:

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.024 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III.

4. Emission Limitations:

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.001 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

5. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined using the emission factor of  $0.94S$  lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitation when firing distillate oil may be determined using the emission factor of  $1.01S$  lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitations may also be demonstrated based upon the records required pursuant to Section A.III.

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

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III..

6. Emission Limitations:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance may be determined by using the emission factor of 0.02 lb/mmBtu. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

7. Emission Limitations:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined by using the emission factor of 0.000455 lb/mmBtu. The emission factor is based upon the averaged results of the formaldehyde emission testing conducted for this emissions unit on June 11, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

8. Emission Limitations:

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

Applicable Compliance Methods:

Compliance with these hourly emission limitations may be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

9. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of  $0.94S$  lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of  $1.01S$  lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

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

10. Emission Limitation:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

Applicable Compliance Method:

This emission limitation was established by multiplying the emission factor of 0.00071 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-3 (4/00).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

11. Emission Limitation:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.02 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

12. Emission Limitations:

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

Applicable Compliance Method:

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

**IV. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
<p>Simple cycle stationary combustion turbine having a nominal power production rating of 85 MW and a nominal heat input, at full load at ISO standard conditions, of 865.7 mmBtu/hour when firing natural gas and 932.9 mmBtu/hour when firing distillate oil (number 1 and number 2 fuel oil, kerosene and diesel fuel, but excluding number 4 fuel oil). (P001 - CT Unit #2)</p>	<p>40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.</p>	<p>When firing natural gas, particulate/PM10** emissions from this emissions unit shall not exceed 5.0 lbs/hour.</p> <p>When firing distillate oil, particulate/PM10** emissions from this emissions unit shall not exceed 10.0 lbs/hour.</p> <p>Particulate/PM10** emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.</p> <p>**The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.</p> <p>When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.</p> <p>When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15%</p>

oxygen on a dry basis, at full load, as a 1-hour average.

See A.I.2.k below.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

See A.I.2.a below.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid PSD rule requirements.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid MACT  
rule requirements

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

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

See A.I.2.b, A.II.1, and A.II.2 below.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

See A.I.2.c and A.II.3 below.

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

See A.I.2.d and A.I.2.e below.

The nitrogen oxides emission limitation specified by this rule is less stringent than the nitrogen oxides emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.

The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitations established pursuant to OAC rule 3745-31-05(C).

40 CFR Part 60, Subpart GG

OAC rule 3745-17-07(A)	See A.I.2.f below.  The visible particulate emission limitations specified by this rule are less stringent than the visible particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-11(B)(4)	The particulate emission limitation specified by this rule is less stringent than the particulate/PM10 emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.
OAC rule 3745-18-06(F)	When firing distillate oil, the sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(C).
OAC rule 3745-21-08(B)	When firing natural gas, pursuant to OAC rule 3745-18-06(A), this emissions unit is exempt from the sulfur dioxide emission limitation specified by this rule.
OAC rule 3745-23-06(B)	See A.I.2.g below.
	See A.I.2.h below.

**2. Additional Terms and Conditions**

**2.a** 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 (i.e., natural gas and distillate oil) in the combustion turbine and compliance with specified emission limitations.

Nitrogen oxides emissions - the BACT determination is the use of dry low-nitrogen oxides burners when firing natural gas, water injection into the combustion zone when firing distillate oil, and compliance with the ppm emission limitations.

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

Organic compound emissions - the BACT determination is the use of the combustion technology inherent in the design of the combustion turbine.

- 2.b** The annual sulfur dioxide emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the PSD regulations for this pollutant.
- 2.c** The annual formaldehyde emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the MACT regulations.
- 2.d** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05(A)(3) includes compliance with the specified emission limitations and also includes compliance with the emission limitations and operating requirements specified by 40 CFR Part 52, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(C).
- 2.e** The hourly nitrogen oxides (non-startup and shutdown), sulfur dioxide, formaldehyde, and sulfuric acid mist emission limitations, established pursuant to OAC rule 3745-31-05(A)(3), reflect the potentials to emit for these pollutants for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.f** The installation and operation of systems to continuously monitor and record emissions of NOx and the oxygen content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.  
  
In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for this emissions unit in accordance with this permit.
- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with

the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

- 2.i "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.
- 2.j "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.
- 2.k If the fuel fired in this emissions unit is switched from distillate oil to natural gas during any operating hour, the permittee shall comply with the distillate oil emission limitation for each such operating hour.

## II. Operational Restrictions

1. The sulfur content of the distillate oil fired in emissions units P001 through P005 shall not exceed 0.3%, by weight.
2. The quantity of distillate oil fired in emissions units P001 through P005, combined, shall not exceed 1,873,239 gallons per rolling, 12-month period.

The permittee may fire a greater quantity of distillate oil than is specified above if the distillate oil contains less than 0.3% sulfur, by weight, and compliance with the annual sulfur dioxide limitation (39.9 tons) is maintained. If distillate oil with a sulfur content less than 0.3% is fired, the permittee shall calculate and record the sulfur dioxide emission rate on a daily basis and use the daily emission rates to determine the total monthly sulfur dioxide emissions.

3. To ensure compliance with the annual formaldehyde emission limitation established pursuant to OAC rule 3745-31-05(C), the total operating hours for emissions units P001 through P005, combined, when firing natural gas, shall not exceed 27,155 hours per rolling, 12-month period.
4. The permittee shall only fire natural gas or distillate oil in this emissions unit.

## III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor and record the nitrogen oxides emissions from this emissions unit in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: ppmvd at 15% oxygen, at full load (as defined in A.I.2.i), as a 1-hour average (when firing natural gas and distillate oil), ppmvd at 15% oxygen, as a rolling, 12-month average (when firing natural gas), lbs/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous nitrogen oxides monitoring system designed to ensure continuous valid and representative readings of nitrogen oxides emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting activities related to the continuous nitrogen oxides monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
4. The permittee shall monitor and analyze the sulfur content of the fuel being fired in this emissions unit in accordance with the applicable provisions specified in 40 CFR Parts 60.334 and 60.335.
5. The permittee shall maintain records that document the following:
  - a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and

- d. all periods of time when the emissions unit was operated at less than 50% of full load.
6. The permittee shall maintain monthly records that document the following:
    - a. the total amount of distillate oil fired in this emissions unit, in gallons;
    - b. the total amount of distillate oil fired in emissions units P001 through P005, combined, in gallons;
    - c. the rolling, 12-month summation of the distillate oil usage for emissions units P001 through P005, combined, in gallons;
    - d. the total number of hours this emissions unit was in operation and firing natural gas;
    - e. the total number of hours emissions units P001 through P005 were in operation and firing natural gas;
    - f. the rolling, 12-month summation of the total number of hours emissions units P001 through P005, combined, were in operation and firing natural gas;
    - g. the startup and shutdown emissions\* for nitrogen oxides, in tons;
    - h. the total particulate/PM10, nitrogen oxides (including startup and shutdown emissions), carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions\* for this emissions unit, in tons;
    - i. the total particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons;
    - j. the rolling, 12-month summation of the nitrogen oxides (including startup and shutdown emissions) emissions for this emissions unit, in tons; and
    - k. the rolling, 12-month summation of the particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons.

\* The permittee shall use the continuous nitrogen oxides emission monitoring data to determine the nitrogen oxides emissions for these emissions units. During any period when the continuous nitrogen oxides emission monitoring system is not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the rolling, 12-month nitrogen oxides emissions. The permittee shall use the most recent emission test data or specified emission factor(s) to determine the particulate/PM10, carbon monoxide, organic compound, sulfuric acid mist, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the sulfur dioxide emissions for these emissions units.

7. For each day during which the permittee fires a fuel other than natural gas or distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.

#### 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 the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of nitrogen oxides values in excess of the applicable emission limitations specified in the terms and conditions of this permit (15 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i)), as a 1-hr average and 9 ppmvd at 15% oxygen, as a rolling, 12-month average) when firing natural gas and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i)), as a 1-hr average) when firing distillate oil).

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 nitrogen oxides 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 date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northeast District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. The permittee shall submit quarterly deviation (excursion) reports to the Ohio EPA, Northeast District Office that identify the following:
  - a. any time periods when distillate oil with a sulfur content greater than 0.3%, by weight, was fired in emissions units P001 through P005;
  - b. all exceedances of the rolling, 12-month distillate oil usage restriction for emissions units P001 through P005, combined, when firing distillate oil with a sulfur content of 0.3%, by weight;
  - c. all exceedances of the rolling, 12-month operating hour restriction for emissions units P001 through P005, combined, when firing natural gas;

- d. each day when a fuel other than natural gas or distillate oil was fired in this emissions unit;
- e. all exceedances of the rolling, 12-month nitrogen oxides emission limitation for this emissions unit; and
- f. all exceedances of the rolling, 12-month particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and/or formaldehyde emission limitations for emissions units P001 through P005, combined.

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

## **V. Testing Requirements**

### **1. Emission Limitations:**

When firing natural gas, particulate/PM10 emissions from this emissions unit shall not exceed 5.0 lbs/hour.

When firing distillate oil, particulate/PM10 emissions from this emissions unit shall not exceed 10.0 lbs/hour.

Particulate/PM10 emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.

#### **Applicable Compliance Methods:**

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.0019 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the particulate emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

### **2. Emission Limitations:**

When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen on a dry basis, at full load, as a 1-hour average.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the ppmvd at 15% oxygen and startup and shutdown emission limitations shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data and the records required pursuant to Section A.III.

3. Emission Limitations:

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.023 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III.

4. Emission Limitations:

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.001 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

5. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined using the emission factor of  $0.94S$  lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitation when firing distillate oil may be determined using the emission factor of  $1.01S$  lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitations may also be demonstrated based upon the records required pursuant to Section A.III.

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

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III..

6. Emission Limitations:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance may be determined by using the emission factor of 0.02 lb/mmBtu. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

7. Emission Limitations:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined by using the emission factor of 0.000455 lb/mmBtu. The emission factor is based upon the averaged results of the formaldehyde emission testing conducted for this emissions unit on June 11, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

8. Emission Limitations:

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

Applicable Compliance Methods:

Compliance with these hourly emission limitations may be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

9. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.94S lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 1.01S lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

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

10. Emission Limitation:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

Applicable Compliance Method:

This emission limitation was established by multiplying the emission factor of 0.00071 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The

emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-3 (4/00).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

11. Emission Limitation:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.02 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

12. Emission Limitations:

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

Applicable Compliance Method:

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

**IV. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

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

**A. State and Federally Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>
<p>Simple cycle stationary combustion turbine having a nominal power production rating of 85 MW and a nominal heat input, at full load at ISO standard conditions, of 865.7 mmBtu/hour when firing natural gas and 932.9 mmBtu/hour when firing distillate oil (number 1 and number 2 fuel oil, kerosene and diesel fuel, but excluding number 4 fuel oil). (P001 - CT Unit #2)</p>	<p>40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.</p>	<p>When firing natural gas, particulate/PM10** emissions from this emissions unit shall not exceed 5.0 lbs/hour.</p> <p>When firing distillate oil, particulate/PM10** emissions from this emissions unit shall not exceed 10.0 lbs/hour.</p> <p>Particulate/PM10** emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.</p> <p>**The total PM10 emissions were evaluated and did not trigger any additional federal requirements, therefore, the emissions are being regulated as particulate emissions.</p> <p>When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.</p> <p>When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15%</p>

oxygen on a dry basis, at full load, as a 1-hour average.

See A.I.2.k below.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

See A.I.2.a below.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid PSD rule requirements.

OAC rule 3745-31-05(C)  
Synthetic Minor to avoid MACT  
rule requirements

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

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

See A.I.2.b, A.II.1, and A.II.2 below.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

See A.I.2.c and A.II.3 below.

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

See A.I.2.d and A.I.2.e below.

The nitrogen oxides emission limitation specified by this rule is less stringent than the nitrogen oxides emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.

The sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitations established pursuant to OAC rule 3745-31-05(C).

40 CFR Part 60, Subpart GG

OAC rule 3745-17-07(A)	See A.I.2.f below.  The visible particulate emission limitations specified by this rule are less stringent than the visible particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-17-11(B)(4)	The particulate emission limitation specified by this rule is less stringent than the particulate/PM10 emission limitations established pursuant to 40 CFR Part 52 and OAC Chapter 3745-31.
OAC rule 3745-18-06(F)	When firing distillate oil, the sulfur dioxide emission limitation specified by this rule is less stringent than the sulfur dioxide emission limitation established pursuant to OAC rule 3745-31-05(C).
OAC rule 3745-21-08(B)	When firing natural gas, pursuant to OAC rule 3745-18-06(A), this emissions unit is exempt from the sulfur dioxide emission limitation specified by this rule.
OAC rule 3745-23-06(B)	See A.I.2.g below.
	See A.I.2.h below.

**2. Additional Terms and Conditions**

**2.a** 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 (i.e., natural gas and distillate oil) in the combustion turbine and compliance with specified emission limitations.

Nitrogen oxides emissions - the BACT determination is the use of dry low-nitrogen oxides burners when firing natural gas, water injection into the combustion zone when firing distillate oil, and compliance with the ppm emission limitations.

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

Organic compound emissions - the BACT determination is the use of the combustion technology inherent in the design of the combustion turbine.

- 2.b** The annual sulfur dioxide emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the PSD regulations for this pollutant.
- 2.c** The annual formaldehyde emission limitation establishes the synthetic minor restriction which exempts emissions units P001 through P005 from the requirements of the MACT regulations.
- 2.d** The Best Available Technology (BAT) determination required under OAC rule 3745-31-05(A)(3) includes compliance with the specified emission limitations and also includes compliance with the emission limitations and operating requirements specified by 40 CFR Part 52, OAC rules 3745-31-10 through 3745-31-20, and OAC rule 3745-31-05(C).
- 2.e** The hourly nitrogen oxides (non-startup and shutdown), sulfur dioxide, formaldehyde, and sulfuric acid mist emission limitations, established pursuant to OAC rule 3745-31-05(A)(3), reflect the potentials to emit for these pollutants for this emissions unit. Therefore, it is not necessary to develop any additional monitoring, record keeping, and/or reporting requirements to ensure compliance with these emission limitations.
- 2.f** The installation and operation of systems to continuously monitor and record emissions of NOx and the oxygen content of the exhaust gasses may be performed in lieu of continuously monitoring the ratio of water to fuel fired in the turbine and monitoring the nitrogen content of the fuel being fired in the turbine, as required by 40 CFR Part 60.334.

In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess and emissions reports for this emissions unit in accordance with this permit.

- 2.g** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.h** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with

the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 02-13376.

- 2.i "Full load" shall be defined as the electrical output at the maximum achievable fuel flow rate to the emissions unit for the ambient and equipment conditions during any operating hour. Any actual electrical output within 10% of the calculated electrical output shall be considered full load.
- 2.j "Startup/shutdown operation" or "startup and shutdown operation" occurs when the emissions unit is running at less than 50% of the electric output at full load.
- 2.k If the fuel fired in this emissions unit is switched from distillate oil to natural gas during any operating hour, the permittee shall comply with the distillate oil emission limitation for each such operating hour.

## II. Operational Restrictions

1. The sulfur content of the distillate oil fired in emissions units P001 through P005 shall not exceed 0.3%, by weight.
2. The quantity of distillate oil fired in emissions units P001 through P005, combined, shall not exceed 1,873,239 gallons per rolling, 12-month period.

The permittee may fire a greater quantity of distillate oil than is specified above if the distillate oil contains less than 0.3% sulfur, by weight, and compliance with the annual sulfur dioxide limitation (39.9 tons) is maintained. If distillate oil with a sulfur content less than 0.3% is fired, the permittee shall calculate and record the sulfur dioxide emission rate on a daily basis and use the daily emission rates to determine the total monthly sulfur dioxide emissions.

3. To ensure compliance with the annual formaldehyde emission limitation established pursuant to OAC rule 3745-31-05(C), the total operating hours for emissions units P001 through P005, combined, when firing natural gas, shall not exceed 27,155 hours per rolling, 12-month period.
4. The permittee shall only fire natural gas or distillate oil in this emissions unit.

### III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall operate and maintain equipment to continuously monitor and record the nitrogen oxides emissions from this emissions unit in units of the applicable standards. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: ppmvd at 15% oxygen, at full load (as defined in A.I.2.i), as a 1-hour average (when firing natural gas and distillate oil), ppmvd at 15% oxygen, as a rolling, 12-month average (when firing natural gas), lbs/hour, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits, and magnitude of manual calibration adjustments.

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

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous nitrogen oxides monitoring system designed to ensure continuous valid and representative readings of nitrogen oxides emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook documenting activities related to the continuous nitrogen oxides monitoring system must be kept on site and available for inspection during regular office hours.

2. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
3. The permittee shall operate and maintain equipment to continuously monitor and record the fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.

4. The permittee shall monitor and analyze the sulfur content of the fuel being fired in this emissions unit in accordance with the applicable provisions specified in 40 CFR Parts 60.334 and 60.335.
5. The permittee shall maintain records that document the following:
  - a. the calculated full load for each operating hour;
  - b. the emissions unit's actual electrical output for each operating hour;
  - c. all periods of time when the emissions unit's actual electrical output was within 10% of the calculated full load; and
  - d. all periods of time when the emissions unit was operated at less than 50% of full load.
6. The permittee shall maintain monthly records that document the following:
  - a. the total amount of distillate oil fired in this emissions unit, in gallons;
  - b. the total amount of distillate oil fired in emissions units P001 through P005, combined, in gallons;
  - c. the rolling, 12-month summation of the distillate oil usage for emissions units P001 through P005, combined, in gallons;
  - d. the total number of hours this emissions unit was in operation and firing natural gas;
  - e. the total number of hours emissions units P001 through P005 were in operation and firing natural gas;
  - f. the rolling, 12-month summation of the total number of hours emissions units P001 through P005, combined, were in operation and firing natural gas;
  - g. the startup and shutdown emissions\* for nitrogen oxides, in tons;
  - h. the total particulate/PM10, nitrogen oxides (including startup and shutdown emissions), carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions\* for this emissions unit, in tons;
  - i. the total particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons;
  - j. the rolling, 12-month summation of the nitrogen oxides (including startup and shutdown emissions) emissions for this emissions unit, in tons; and

- k. the rolling, 12-month summation of the particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and formaldehyde emissions for emissions units P001 through P005, combined, in tons.

\* The permittee shall use the continuous nitrogen oxides emission monitoring data to determine the nitrogen oxides emissions for these emissions units. During any period when the continuous nitrogen oxides emission monitoring system is not operational, the permittee shall use the appropriate missing data procedures specified in 40 CFR Part 75 to determine the rolling, 12-month nitrogen oxides emissions. The permittee shall use the most recent emission test data or specified emission factor(s) to determine the particulate/PM10, carbon monoxide, organic compound, sulfuric acid mist, and formaldehyde emissions for these emissions units. The permittee shall use the most recent emission test data or the fuel flow and fuel sulfur content data to determine the sulfur dioxide emissions for these emissions units.

7. For each day during which the permittee fires a fuel other than natural gas or distillate oil, the permittee shall maintain a record of the type and quantity of fuel fired in this emissions unit.

#### 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 the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of nitrogen oxides values in excess of the applicable emission limitations specified in the terms and conditions of this permit (15 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average and 9 ppmvd at 15% oxygen, as a rolling, 12-month average) when firing natural gas and 42 ppmvd at 15% oxygen (at full load (as defined in A.I.2.i), as a 1-hr average) when firing distillate oil).

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 nitrogen oxides 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 date, time, reason, and corrective action(s) taken for each time period of monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

The permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northeast District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

2. The permittee shall submit quarterly deviation (excursion) reports to the Ohio EPA, Northeast District Office that identify the following:
  - a. any time periods when distillate oil with a sulfur content greater than 0.3%, by weight, was fired in emissions units P001 through P005;
  - b. all exceedances of the rolling, 12-month distillate oil usage restriction for emissions units P001 through P005, combined, when firing distillate oil with a sulfur content of 0.3%, by weight;
  - c. all exceedances of the rolling, 12-month operating hour restriction for emissions units P001 through P005, combined, when firing natural gas;
  - d. each day when a fuel other than natural gas or distillate oil was fired in this emissions unit;
  - e. all exceedances of the rolling, 12-month nitrogen oxides emission limitation for this emissions unit; and
  - f. all exceedances of the rolling, 12-month particulate/PM10, carbon monoxide, organic compound, sulfur dioxide, sulfuric acid mist, and/or formaldehyde emission limitations for emissions units P001 through P005, combined.

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

## **V. Testing Requirements**

1. Emission Limitations:

When firing natural gas, particulate/PM10 emissions from this emissions unit shall not exceed 5.0 lbs/hour.

When firing distillate oil, particulate/PM10 emissions from this emissions unit shall not exceed 10.0 lbs/hour.

Particulate/PM10 emissions from emissions units P001 through P005, combined shall not exceed 75.5 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.0019 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.007 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the particulate emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

2. Emission Limitations:

When firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 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, at full load, as a 1-hour average.

During startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 175.0 lbs/hour.

When firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 42 ppmv at 15% oxygen on a dry basis, at full load, as a 1-hour average.

During startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 235.0 lbs/hour.

Nitrogen oxides emissions from this emissions unit (including startup and shutdown emissions) shall not exceed 125.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the ppmvd at 15% oxygen and startup and shutdown emission limitations shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the continuous nitrogen oxides emission monitoring system data and the records required pursuant to Section A.III.

3. Emission Limitations:

Carbon monoxide emissions from this emissions unit shall not exceed 83.0 lbs/hour.

Carbon monoxide emissions from emissions units P001 through P005, combined shall not exceed 499.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.021 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the carbon monoxide emission testing conducted for this emissions unit in May of 2001.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III.

4. Emission Limitations:

When firing natural gas, organic compound emissions from this emissions unit shall not exceed 10.0 lbs/hour.

When firing distillate oil, organic compound emissions from this emissions unit shall not exceed 11.0 lbs/hour.

Organic compound emissions from emissions units P001 through P005, combined shall not exceed 122.0 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of 0.003 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of 0.001 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the organic compound emission testing conducted for this emissions unit on June 14, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 25.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factors specified above and the records required pursuant to Section A.III.

5. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.007 lb/mmBtu, actual heat input.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 0.3 lb/mmBtu, actual heat input.

Sulfur dioxide emissions from emissions units P001 through P005, combined shall not exceed 39.9 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined using the emission factor of  $0.94S$  lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitation when firing distillate oil may be determined using the emission factor of  $1.01S$  lb/mmBtu (where S equals the percent sulfur in the fuel) and the records required pursuant to Section A.III. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00).

Compliance with the lb/mmBtu emission limitations may also be demonstrated based upon the records required pursuant to Section A.III.

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

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the records required pursuant to Section A.III..

6. Emission Limitations:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 0.033 lb/mmBtu, actual heat input.

Sulfuric acid mist emissions from emissions units P001 through P005, combined shall not exceed 4.2 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance may be determined by using the emission factor of 0.02 lb/mmBtu. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

7. Emission Limitations:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed .000713 lb/mmBtu, actual heat input.

Formaldehyde emissions from emissions units P001 through P005, combined, shall not exceed 8.5 tons per rolling, 12-month period.

Applicable Compliance Methods:

Compliance with the lb/mmBtu emission limitation when firing natural gas may be determined by using the emission factor of 0.000455 lb/mmBtu. The emission factor is based upon the averaged results of the formaldehyde emission testing conducted for this emissions unit on June 11, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

Compliance with the tons per rolling, 12-month period emission limitation shall be demonstrated based upon the emission factor specified above and the records required pursuant to Section A.III.

8. Emission Limitations:

During non-startup and shutdown periods, when firing natural gas, nitrogen oxides emissions from this emissions unit shall not exceed 143.0 lbs/hour.

During non-startup and shutdown periods, when firing distillate oil, nitrogen oxides emissions from this emissions unit shall not exceed 215.0 lbs/hour.

Applicable Compliance Methods:

Compliance with these hourly emission limitations may be demonstrated based upon the continuous nitrogen oxides emission monitoring system data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7.

9. Emission Limitations:

When firing natural gas, sulfur dioxide emissions from this emissions unit shall not exceed 0.6 lb/hour.

When firing distillate oil, sulfur dioxide emissions from this emissions unit shall not exceed 339.0 lbs/hour.

Applicable Compliance Methods:

Compliance with the hourly emission limitation when firing natural gas may be determined by multiplying the emission factor of  $0.94S$  lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing natural gas. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

Compliance with the hourly emission limitation when firing distillate oil may be determined by multiplying the emission factor of  $1.01S$  lb/mmBtu (where S equals the percent sulfur in the fuel) by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-2a (4/00). The sulfur content of the fuel may be based upon the records required pursuant to Section A.III.

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

10. Emission Limitation:

When firing natural gas, formaldehyde emissions from this emissions unit shall not exceed 0.617 lb/hour.

Applicable Compliance Method:

This emission limitation was established by multiplying the emission factor of 0.00071 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing natural gas. The

emission factor is specified in USEPA reference document AP-42, Fifth Edition, Compilation of Air Pollution Emission Factors, Section 3.1, Table 3.1-3 (4/00).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 40 CFR Part 63, Appendix A, Method 320.

11. Emission Limitation:

When firing distillate oil, sulfuric acid mist emissions from this emissions unit shall not exceed 35.4 lbs/hour.

Applicable Compliance Method:

Compliance may be determined by multiplying the emission factor of 0.02 lb/mmBtu by the emissions unit's maximum hourly heat input rate when firing distillate oil. The emission factor is based upon the averaged results of the sulfuric acid mist emission testing conducted for this emissions unit on May 19, 2001.

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 8.

12. Emission Limitations:

When firing natural gas, visible particulate emissions from any stack serving this emissions unit shall not exceed 10% opacity as, a 6-minute average.

When firing distillate oil, visible particulate emissions from any stack serving this emissions unit shall not exceed 20% opacity as, a 6-minute average.

Applicable Compliance Method:

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

**IV. Miscellaneous Requirements**

None.

**B. State Only Enforceable Section**

**I. Applicable Emission 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 emission 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 Emission Limitations/Control Measures</u>

**2. Additional Terms and Conditions**

- 2.a None.

**II. Operational Restrictions**

None.

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

None.

**IV. Reporting Requirements**

None.

**V. Testing Requirements**

None.

**VI. Miscellaneous Requirements**

None.

**West Lorain Plant - Ohio Edison Co**  
**PTI Application: 02-13376**  
**Modification Issued: 11/17/2004**

**Facility ID: 0247080487**  
**Emissions Unit ID:P005**

Street Address:

Lazarus Gov. Center  
122 S. Front Street  
Columbus, OH 43215

**TELE: (614) 644-3020 FAX: (614) 644-2329**

Mailing Address:

Lazarus Gov. Center  
P.O. Box 1049  
Columbus, OH 43216-1049

State of Ohio Environmental Protection Agency

**RE: FINAL PERMIT TO INSTALL**

**LORAIN COUNTY**

**Application No: 02-13376**

**DATE: 6/21/00**

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

**CERTIFIED MAIL**

	<b>TOXIC REVIEW</b>
<b>Y</b>	<b>PSD</b>
<b>Y</b>	<b>SYNTHETIC MINOR</b>
<b>Y</b>	<b>CEMS</b>
	<b>MACT</b>
<b>Subpart GG</b>	<b>NSPS</b>
	<b>NESHAPS</b>
	<b>NETTING</b>
	<b>MAJOR NON-ATTAINMENT</b>
<b>Y</b>	<b>MODELING SUBMITTED</b>
	<b>GASOLINE DISPENSING FACILITY</b>

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

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.

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

Environmental Review Appeals Commission  
236 East Town Street, Room 300  
Columbus, Ohio 43215

Very truly yours,



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

cc: USEPA  
Robert Armburger

NEDO



STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install**  
**Terms and Conditions**

**Issue Date: June 21, 2000**  
**Effective Date: June 21, 2000**

**West Lorain Plant - Ohio Edison Co**  
**PTI Application: 02-13376**  
**Modification Issued: 11/17/2004**

**Facility ID: 0247080487**  
**Emissions Unit ID:P005**

Application Number: 02-13376

APS Premise Number: 0247080487

Permit Fee: **\$6250**

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

**Part I - GENERAL TERMS AND CONDITIONS**

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

**1. Monitoring and Related Recordkeeping and Reporting Requirements**

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - i. The date, place (as defined in the permit), and time of sampling or measurements.
  - ii. The date(s) analyses were performed.
  - iii. The company or entity that performed the analyses.
  - iv. The analytical techniques or methods used.
  - v. The results of such analyses.
  - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
  - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.11 below if no deviations occurred during the quarter.
  - iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - iv. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.

**2. Scheduled Maintenance/Malfunction Reporting**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

**3. Risk Management Plans**

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

**4. Title IV Provisions**

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

**5. Severability Clause**

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition

depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

**6. General Requirements**

a. The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and reissuance, or modification, or for denial of a permit renewal application.

b. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.

c. This permit may be modified, reopened, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.

d. This permit does not convey any property rights of any sort, or any exclusive privilege.

e. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

**7. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit To Install fees within 30 days after the issuance of this Permit To Install.

**8. Federal and State Enforceability**

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

**9. Compliance Requirements**

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

**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)

**West Lorain Plant - Ohio Edison Co**

**PTI Application: 02-13376**

**Modification Issued: 11/17/2004**

**Facility ID: 0247080487**

**Emissions Unit ID:P005**

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.

**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**

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	499.9

Nitrogen Oxides	629.92
Volatile Organic Compound	122.2
Sulfuric Acid Mist	4.2
Formaldehyde	8.5