State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
WASHINGTON COUNTY

Street Address: Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329 Mailing Address: Lazarus Gov. Center

Application No: 06-06739

DATE: 5/14/2002

PSEG Waterford Energy LLC
Mick Mastilovic
80 Park Plaza, Mail Code T191
Newark, NJ 07102

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 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
236 East Town Street, Room 300
Columbus, Ohio 43215

Very truly yours,

Thomas G. Rigo

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

CC: USEPA **SEDO**

FINAL PERMIT TO INSTALL 06-06739

Application Number:	06-06739
APS Premise Number:	0684000213
Permit Fee:	**$1500**
Name of Facility:	PSEG Waterford Energy LLC
Person to Contact:	Mick Mastilovic
Address:	80 Park Plaza, Mail Code T191 Newark, NJ 07102

Location of proposed air contaminant source(s) [emissions unit(s)]:
Township Rd 32
Beverly, Ohio

Description of proposed emissions unit(s):
Chapter 31 modification of auxiliary boiler (B001) and combustion turbines (P001, P002 and P003) and installation of a cooling tower (P004). Modification of DAPC terms and conditions only.

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 <u>emission limitations</u>, <u>operational restrictions</u>, <u>and control device operating parameter limitations</u>, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous

calendar quarters. See B.10 below if no deviations occurred during the quarter.

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 thirty (30) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

12. Air Pollution Nuisance

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

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

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

3. Permit Transfers

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

4. Termination of Permit To Install

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

5. Construction of New Sources(s)

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

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

6. Public Disclosure

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

7. Applicability

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

8. Construction Compliance Certification

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

Pollutant	Tons Per Year
NOx	168.0 (Phase I)
	460.9 (Phase II)
SO2	30.6 (Phase I)
	170.0 (Phase II)
CO	90.2 (Phase I)
	1128.9 (Phase II)
VOC	8.5 (Phase I)
	97.3 (Phase II)
PE	47.2 (Phase I)
	310.8 (Phase II)
Ammonia (NH3)	369.3 (Phase II)
Formaldehyde	0.6 (Phase I)
	3.2 (Phase II)
Sulfuric Acid	1.2 (Phase I)
	6.9 (Phase II)

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

1. The following emissions units are also being installed as part of this project:

Emissions Unit	BACT	Phase I Emissions	Phase II Emissions
1000 kW Emergency Diesel Fuel Fired Generator*	Use of low sulfur fuel	0.82 TPY NOx 0.22 TPY CO 0.02 TPY VOC 0.01 TPY SO2 0.01 TPY PE	0.82 TPY NOx 0.22 TPY CO 0.02 TPY VOC 0.01 TPY SO2 0.01 TPY PE
290 kW Emergency Diesel Fuel Fired Fire Water Pump*	Use of low sulfur fuel	0.24 TPY NOx 0.05 TPY CO 0.02 TPY VOC 0.003 TPY SO2 0.017 TPY PE	0.24 TPY NOx 0.05 TPY CO 0.02 TPY VOC 0.003 TPY SO2 0.017 TPY PE
Roadways/Parking Areas	Paving	0.54 TPY PE	0.54 TPY PE
Two-Cell Blow-down Cooling Tower	Not Applicable	0.18 TPY PE	0.69 TPY PE
9.3 MMBtu/hr Natural Gas Fired Gas Heater	Not Applicable	1.10 TPY NOx 0.23 TPY CO 0.06 TPY VOC 0.003 TPY SO2 0.13 TPY PE	5.70 TPY NOx 1.18 TPY CO 0.33 TPY VOC 0.02 TPY SO2 0.68 TPY PE

* Subject to OAC rule 3745-31-03(A)(4); restricted to no more than 500 hours per 12-month rolling period.

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.

Operations, Property,
and/or Equipment

PHASE I

B001 - 85.2 MMBtu/hr
Natural Gas-Fired Boiler

PHASE II

B001 - 85.2 MMBtu/hr Natural Gas-Fired Boiler

Applicable Rules/Requirements		
	and OAC rule 3745-23-06(B)	
OAC rule 3745-31-05(A)(3)	OAC rule 3745-31-05(D)	40 CFR Part 60, Subpart Dc OAC rule 3745-18-06(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A) OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B)
	OAC rule 3745-31-05(A)(3)	OAC rule 3745-31-05(D)
40 CFR Part 60, Subpart Dc OAC rule 3745-18-06(A) OAC rule 3745-17-10(B)(1) OAC rule 3745-17-07(A) OAC rule 3745-21-08(B)		

Applicable Emission Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-31-10 through 3745-31-20.	Particulate emissions (PE) shall not exceed 0.005 lb/MMBtu actual heat input, 0.43 lb/hr, and 0.36 ton per year. The emission limitations specified by these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule. See A.I.2.a below.	**LIMITATIONS** Nitrogen oxides (NOx) emissions shall not exceed 0.036 lb/MMBtu actual heat input, 3.07 lbs/hr, and 13.4 tons per year. Sulfur dioxide (SO2) emissions shall not exceed 0.000584 lb/MMBtu actual heat input, 0.050 lb/hr, and 0.22 ton per year. Carbon monoxide (CO) emissions shall not exceed 0.074 lb/MMBtu actual heat input, 6.30 lbs/hr, and 27.6 tons per year. Volatile organic compound (VOC) emissions shall not exceed 0.0041 lb/MMBtu actual heat input, 0.35 lb/hr, and 1.53 tons per year. Particulate emissions (PE) shall not exceed 0.005 lb/MMBtu actual heat input, 0.43 lb/hr, and 1.87 tons per year. The emission limitations specified by these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3). Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule. See A.I.2.a below.
PHASE I EMISSION LIMITATIONS Nitrogen oxides (NOx) emissions shall not exceed 0.036 lb/MMBtu actual heat input, 3.07 lbs/hr, and 2.6 tons per year. Sulfur dioxide (SO2) emissions shall not exceed 0.000584 lb/MMBtu actual heat input, 0.050 lb/hr, and 0.04 ton per year. Carbon monoxide (CO) emissions shall not exceed 0.074 lb/MMBtu actual heat input, 6.30 lbs/hr, and 5.4 tons per year. Volatile organic compound (VOC) emissions shall not exceed 0.0041 lb/MMBtu actual heat input, 0.35 lb/hr, and 0.30 ton per year.	See A.II.1 and A.II.2 below. NOx emissions shall not exceed 2.6 tons per rolling 12-month period. SO2 emissions shall not exceed 0.04 ton per rolling 12-month period. PE emissions shall not exceed 0.36 ton per rolling 12-month period. CO emissions shall not exceed 5.4 tons per rolling 12-month period. VOC emissions shall not exceed 0.30 ton per rolling 12-month period. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-31-10 through 3745-31-20. **PHASE II EMISSION**	See A.II.1 below. NOx emissions shall not exceed 13.4 tons per rolling 12-month period. SO2 emissions shall not exceed 0.22 ton

per rolling 12-month period.
PE emissions shall not exceed 1.87 tons per rolling 12-month period.
CO emissions shall not exceed 27.6 tons per rolling 12-month period.
VOC emissions shall not exceed 1.53 tons per rolling 12-month period.

2. Additional Terms and Conditions

2.a The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) and 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 this Permit to Install.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.

2. The maximum hourly fuel heat input for this emissions unit shall not exceed 85.2 MMBtu. During Phase I, the maximum annual fuel heat input for this emissions unit shall not exceed 144,840 MMBtu, based upon a rolling, 12-month summation of the heat input values.

To ensure enforceability during the first 12 calendar months following the start-up of this emissions unit, the permittee shall not exceed the monthly fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	108,630
1-2	144,840
1-3	144,840
1-4	144,840
1-5	144,840
1-6	144,840

1-7	144,840
1-8	144,840
1-9	144,840
1-10	144,840
1-11	144,840
1-12	144,840

If Phase I extends beyond the first 12 calendar months following the start-up of this emissions unit, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

2. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the emissions unit. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D.

3. The permittee shall maintain hourly records of the fuel quantity used (cubic feet) and the heat input (MMBtu/hr) for this emissions unit.

4. The permittee shall maintain the following monthly records for this emissions unit:

a. during the first 12 calendar months of operation, the cumulative fuel heat input (MMBtu);

b. beginning after the first 12 calendar months of operation, records of the rolling, 12-month summation of fuel heat input (MMBtu);

c. during the first 12 calendar months of operation, the NOx, SO2, PE, CO, and VOC emissions, in tons; and

d. beginning after the first 12 calendar months of operation of this emissions unit, records of the rolling, 12-month summation of the NOx, SO2, PE, CO, and VOC emissions, in tons.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

2. **Phase I:** The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;

b. all exceedances of the maximum allowable cumulative fuel heat input limitations during the first 12 calendar months of operation;

c. beginning after the first 12 calendar months of operation, all exceedances of the rolling, 12-month fuel heat input limitation; and

d. beginning after the first 12 calendar months of operation, all exceedances of the rolling, 12-month emission limitations for NOx, SO2, PE, CO, and VOC.

The quarterly deviation reports shall be submitted in accordance with Part 1 - General Term and Condition A.2.

3. **Phase II:** The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet; and

b. beginning after the first 12 calendar months of operation, all exceedances of the rolling, 12-month emission limitations for NOx, SO2, PE, CO, and VOC.

The quarterly deviation reports shall be submitted in accordance with Part 1 - General Term and Condition A.2.

4. The permittee shall also submit annual reports that specify the total NOx, SO2, PE, CO, and VOC emissions from this emissions unit for the previous calendar year. The annual reports shall be submitted by February 15 of each year.

5. This emissions unit is subject to the applicable provisions of Subpart Dc of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. 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 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (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, Ohio 43216-3669

and

Ohio Environmental Protection Agency
Southeast District Office
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138

V. Testing Requirements

1. Emission Limitations:

Phase I:

NOx emissions shall not exceed 0.036 lb/MMBtu, 3.07 lbs/hr, and 2.6 tons per year.

Phase II:

NOx emissions shall not exceed 0.036 lb/MMBtu, 3.07 lbs/hr, and 13.4 tons per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.036 lb NOx /MMBtu).

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the permittee-supplied NOx emission factor (0.036 lb NOx /MMBtu) by the actual fuel heat input rate (MMBtu/hr).

Compliance with the tons per year emission limitations shall be demonstrated by multiplying the permittee-supplied NOx emission factor (0.036 lb NOx/MMBtu) or emissions unit specific NOx emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2000 lbs/ton.

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

2. Emission Limitations:

Phase I:

SO2 emissions shall not exceed 0.000584 lb/MMBtu, 0.050 lb/hr, and 0.04 ton per year.

Phase II:

SO2 emissions shall not exceed 0.000584 lb/MMBtu, 0.050 lb/hr, and 0.22 ton per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the following AP-42 emission factor: 0.000584 lb SO2 /MMBtu (AP-42, Fifth Edition, Section 1.4, Table 1.4-2, 7/98).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the AP-42 emission factor (0.000584 lb SO2 /MMBtu) by the actual fuel heat input rate (MMBtu/hr).

Compliance with the tons per year emission limitations shall be demonstrated by multiplying the AP-42 SO2 emission factor (0.000584 lb SO2/MMBtu) or emissions unit specific SO2 emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2000 lbs/ton.

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

3. Emission Limitations:

Phase I:

CO emissions shall not exceed 0.074 lb/MMBtu, 6.30 lbs/hr, and 5.4 tons per year.

Phase II:

CO emissions shall not exceed 0.074 lb/MMBtu, 6.30 lbs/hr, and 27.6 tons per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.074 lb CO/MMBtu).

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the permittee-supplied CO emission factor (0.074 lb CO/MMBtu) by the actual fuel heat input rate

(MMBtu/hr).

Compliance with the tons per year emission limitations shall be demonstrated by multiplying the permittee-supplied CO emission factor (0.074 lb CO/MMBtu) or emissions unit specific CO emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and lbs/hr emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

4. Emission Limitations:

Phase I:

VOC emissions shall not exceed 0.0041 lb/MMBtu, 0.35 lb/hr, and 0.30 ton per year.

Phase II:

VOC emissions shall not exceed 0.0041 lb/MMBtu, 0.35 lb/hr, and 1.53 tons per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.0041 lb VOC /MMBtu).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the permittee-supplied VOC emission factor (0.0041 lb VOC /MMBtu) by the actual fuel heat input rate (MMBtu/hr).

Compliance with the ton(s) per year emission limitations shall be demonstrated by multiplying the permittee-supplied VOC emission factor (0.0041 lb VOC /MMBtu) or emissions unit specific VOC emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2000 lbs/ton.

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

5. Emission Limitations:

Phase I:

PE emissions shall not exceed 0.005 lb/MMBtu, 0.43 lb/hr, and 0.36 ton per year.

Phase II:

PE emissions shall not exceed 0.005 lb/MMBtu, 0.43 lb/hr, and 1.87 tons per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.005 lb PE /MMBtu).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the permittee-supplied PE emission factor (0.005 lb PE /MMBtu) by the actual fuel heat input rate (MMBtu/hr).

Compliance with the ton(s) per year emission limitations shall be demonstrated by multiplying the permittee-supplied PE emission factor (0.005 lb PE /MMBtu) or emissions unit specific PE emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2000 lbs/ton.

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

6. Emission Limitations:

Phase I:

NOx emissions shall not exceed 2.6 tons per rolling 12-month period.
SO2 emissions shall not exceed 0.04 ton per rolling 12-month period.
PE emissions shall not exceed 0.36 ton per rolling 12-month period.
CO emissions shall not exceed 5.4 tons per rolling 12-month period.
VOC emissions shall not exceed 0.30 ton per rolling 12-month period.

Phase II:

NOx emissions shall not exceed 13.4 tons per rolling 12-month period.
SO2 emissions shall not exceed 0.22 ton per rolling 12-month period.
PE emissions shall not exceed 1.87 tons per rolling 12-month period.
CO emissions shall not exceed 27.6 tons per rolling 12-month period.
VOC emissions shall not exceed 1.53 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emission limitations shall be demonstrated based upon the records required pursuant to section A.III and the associated emission factors specified in section A.V.

7. Emission Limitation:

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

Applicable Compliance Method:

If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

1. The terms and conditions for this emissions unit supercede those contained in PTI 06-06206 issued March 29, 2001.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
B001 - 85.2 MMBtu/hr Natural Gas-Fired Boiler	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

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.

Operations, Property, and/or Equipment		
PHASE I		**PHASE II**
P001 - GE 7FA Natural Gas- Fired Dry Low NOx (DLN) Combustion Turbine		P001 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine with Duct Firing Operated in Combined Cycle Mode and Controlled by Selective Catalytic Reduction (SCR)

Applicable Rules/Requirements		
	40 CFR Part 60, Subpart GG	
	OAC rule 3745-18-06(F) OAC rule 3745-17-11(B)(4)	
OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-07(A)	
	OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)	
	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)(3)	
		40 CFR Part 60, Subpart GG
		OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F)
		OAC rule 3745-21-08(B) OAC rule 3745-23-06(B)

OAC rules 3745-31-10 through 3745-31-20		
		OAC rule 3745-31-05(A)(3)
OAC rule 3745-31-05(A)(3)		
	40 CFR Part 60, Subpart GG 40 CFR Part 60, Subpart Da OAC rule 3745-18-06(F) OAC rule 3745-17-11 (B)(4) OAC rule 3745-17-07(A) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B) OAC rules 3745-31-10 through 3745-31-20	

Applicable Emission Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20.	shall not exceed 0.23 lb/hr and 0.20 ton/yr. Sulfuric acid emissions shall not exceed 0.48 lb/hr and 0.41 ton/yr. Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average. See A.II.1 and A.II.3 below.	requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20. Nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr, and 146.9 tons/yr, including start-up and shutdown emissions. Particulate emissions (PE) shall not exceed 21.0 lbs/hr and 100.0 tons/yr.
PHASE I EMISSION LIMITATIONS	See A.I.2.b below.	Sulfur dioxide (SO_2) emissions shall not exceed 12.0 lbs/hr and 56.6 tons/yr.
Nitrogen oxides (NO_x) emissions shall not exceed 9.0 ppmvd at 15% oxygen, 64.0 lbs/hr, and 54.4 tons/yr.	See A.I.2.a below.	Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 366.6 tons/yr, including start-up and shutdown emissions.
Particulate emissions (PE) shall not exceed 18.0 lbs/hr and 15.3 tons/yr.	See A.I.2.d below.	Volatile organic compound (VOC) emissions shall not exceed 3.2 lbs/hr and 31.8 tons/yr, including start-up and shutdown emissions.
Sulfur dioxide (SO_2) emissions shall not exceed 12.0 lbs/hr and 10.2 tons/yr.	NOx emissions shall not exceed 54.4 tons per rolling, 12-month period. SO2 emissions shall not exceed 10.2 tons per rolling, 12-month period. PE emissions shall not exceed 15.3 tons per rolling, 12-month period. CO emissions shall not exceed 28.1 tons per rolling, 12-month period. VOC emissions shall not exceed 2.7 tons per rolling, 12-month period.	Ammonia (NH3) emissions shall not exceed 26.0 lbs/hr and 123.1 tons/yr.
Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 28.1 tons/yr.		Formaldehyde emissions shall not exceed 0.23 lb/hr and 1.06 tons/yr.
Volatile organic compound (VOC) emissions shall not exceed 3.2 lbs/hr and 2.7 tons/yr.	**EMISSION LIMITATIONS WITHOUT DUCT BURNER FIRING - PHASE II**	Sulfuric acid emissions shall not exceed 0.48 lb/hr and 2.3 tons/yr.
Formaldehyde emissions	The requirements of this rule also include compliance with the	Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average. See A.II.1 and A.II.4 below.

See A.I.2.b below.	and shutdown emissions.	
See A.I.2.a below.	Particulate emissions (PE) shall not exceed 25.0 lbs/hr and 100.0 tons/yr.	NOx emissions shall not exceed 149.6 tons per rolling, 12-month period. SO2 emissions shall not exceed 56.6 tons per rolling, 12-month period. PE emissions shall not exceed 100.0 tons per rolling, 12-month period. CO emissions shall not exceed 366.6 tons per rolling, 12-month period. VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.
See A.I.2.d below.	Sulfur dioxide (SO_2) emissions shall not exceed 14.0 lbs/hr and 56.6 tons/yr.	
NOx emissions shall not exceed 149.6 tons per rolling, 12-month period. SO2 emissions shall not exceed 56.6 tons per rolling, 12-month period. PE emissions shall not exceed 100.0 tons per rolling, 12-month period. CO emissions shall not exceed 366.6 tons per rolling, 12-month period. VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.	Carbon monoxide (CO) emissions shall not exceed 15.0 ppmvd, 69.0 lbs/hr, and 366.6 tons/yr, including start-up and shutdown emissions.	**START-UP AND SHUTDOWN EMISSION LIMITATIONS - PHASE II** (See A.II.2 below.)
	Volatile organic compound (VOC) emissions shall not exceed 6.8 lbs/hr and 31.8 tons/yr, including start-up and shutdown emissions.	Nitrogen oxides (NO_x) emissions shall not exceed 418 lbs/cycle and 27.4 tons/yr.
	Ammonia (NH3) emissions shall not exceed 30.6 lbs/hr and 123.1 tons/yr.	Carbon monoxide (CO) emissions shall not exceed 1127 lbs/cycle and 150.1 tons/yr.
	Formaldehyde emissions shall not exceed 0.26 lb/hr and 1.06 tons/yr.	Volatile organic compound (VOC) emissions shall not exceed 97 lbs/cycle and 10.6 tons/yr.
EMISSION LIMITATIONS WITH DUCT BURNER FIRING - PHASE II	Sulfuric acid emissions shall not exceed 0.56 lb/hr and 2.3 tons/yr.	
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts Da and GG, and OAC rules 3745-31-10 through 3745-31-20.	Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.	
	See A.II.1 and A.II.4 below.	
	See A.I.2.b below.	
	See A.I.2.a below.	
Nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 30.0 lbs/hr, and 146.9 tons/yr, including start-up	See A.I.2.d below.	

2. Additional Terms and Conditions

2.a The emission limitations specified in these applicable rules are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2.b The emission limitations specified in this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC Chapter 103 and 40 CFR Parts 72 and 75 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.

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) and 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 this Permit to Install.

2.e In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60, Subpart GG (section 60.334(b)), the permittee may install and operate systems to continuously monitor and record emissions of NOx from this emissions unit during Phase I operations.

2.f After the NOx continuous emissions monitoring system for this emissions unit is installed and certified, the permittee shall submit excess emissions reports for this emissions unit in accordance with this permit, in lieu of the excess emissions reports required under 40 CFR Part 60.334.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.

2. Start-up and shutdown shall be defined as when the unit is running at less than 50% of electric load, but under no circumstances shall start-ups exceed 250 minutes in duration and shutdowns shall not exceed 2 hours in duration. The total of all hot, warm and cold start-ups (as defined

below) and shutdowns shall be limited to 286 cycles (each cycle consists of one start-up and one shutdown) per year.

Hot Start - start-up occurs within 8 hours after a plant shutdown
Warm Start - start-up occurs between 8 to 72 hours after a plant shutdown
Cold Start - start-up occurs more than 72 hours after a plant shutdown

Each cycle shall be limited to the following:

Pollutant	Total lbs/Cycle
NOx	418
CO	1127
VOC	97

During Phase I, start-up and shutdown emissions are not anticipated to increase above levels defined during normal operation of a simple cycle turbine.

3. During Phase I, the maximum hourly fuel heat input for this emissions unit shall not exceed 1744.3 MMBtu/hr and the annual maximum fuel heat input shall not exceed 2,965,310 MMBtu per year based upon a rolling, 12-month summation of the heat input values. Due to this operational restriction, this gas-fired peaking unit will not have to install the applicable continuous emission monitoring systems specified in 40 CFR Part 75 until Phase II.
To ensure enforceability during the first 12 calendar months following the start-up of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,297,759
1-2	2,595,518
1-3	2,965,310
1-4	2,965,310
1-5	2,965,310
1-6	2,965,310
1-7	2,965,310
1-8	2,965,310
1-9	2,965,310
1-10	2,965,310
1-11	2,965,310
1-12	2,965,310

If Phase I extends beyond the first 12 calendar months following the start-up of this emissions unit, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

4. During Phase II, the maximum hourly combustion turbine fuel heat input shall not exceed 1744.3 MMBtu/hr.

The maximum hourly fuel heat input of the duct burner for this emissions unit shall not exceed 360 MMBtu/hr. The maximum annual fuel heat input of the duct burner shall not exceed 1,440,000 MMBtu per year, based upon a rolling, 12-month summation of the heat input values.

To ensure enforceability during the first 12 calendar months following the start-up of the duct burner, the permittee shall not exceed the monthly duct burner fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	267,840
1-2	535,680
1-3	803,520
1-4	1,071,360
1-5	1,440,000
1-6	1,440,000
1-7	1,440,000
1-8	1,440,000
1-9	1,440,000
1-10	1,440,000
1-11	1,440,000
1-12	1,440,000

After the first 12 calendar months following the start-up of the duct burner, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

5. <u>Continuous NOx Monitoring System Certification</u>

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

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, and 40 CFR Part 75.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

7. <u>Continuous CO Monitoring System Certification</u>

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to

initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

9. <u>Continuous O_2 Monitoring System Certification</u>

Prior to the installation of the continuous O_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office.

Certification of the continuous O_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 monitoring system designed to ensure continuous valid and representative readings of O_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F

and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. **Phase I**: The permittee shall maintain monthly records of the following information for this emissions unit:

a. The natural gas usage rate, in standard cubic feet.

b. Hours of operation of the combustion turbine.

c. Monthly fuel heat input (MMBtu) to the combustion turbine.

d. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine.

e. Beginning after the first 12 months of operation, the rolling, 12-month summation of fuel heat input to the combustion turbine.

f. The NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emission rates, in lbs.

g. The average hourly NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emission rates, in lbs (i.e., the values from (f) divided by (b)).

h. Beginning after the first 12 months of operation, the rolling, 12-month summations of the NOx, CO, PE, SO2, and VOC emission rates, in tons.

2. **Phase I:** The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.6 and fuel gross calorific value as determined in term A.III.7. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

3. The permittee shall install, operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard. This NO_x monitoring equipment must be installed for Phase II operation. The NO_x monitoring equipment may be used during Phase I in order to minimize or eliminate fuel nitrogen content sampling requirements specified in 40 CFR Part 60, Subpart GG. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis,

emissions of NO_x in units of the applicable standard in the appropriate averaging period (i.e., ppmvd at 15% oxygen and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., ppmvd and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, operate and maintain equipment to continuously monitor and record O_2 emissions from this emissions unit in percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 monitoring system including, but not limited to, percent O_2 on an instantaneous (one-minute) basis, emissions of O_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. **Phase I and II**: The permittee shall install, 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.

7. **Phase I and II:** The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D, section 2.3.3.1.

8. **Phase II**: The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.6 and fuel gross calorific value as

determined in term A.III.7. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

9. **Phase II**: The permittee shall maintain monthly records of the following information for this emissions unit:

a. The natural gas usage rate, in standard cubic feet.

b. Hours of operation of the combustion turbine.

c. Hours of operation of the duct burner.

d. Monthly fuel heat input (MMBtu) to the combustion turbine.

e. Monthly fuel heat input (MMBtu) to the duct burner.

f. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine and the duct burner.

g. Beginning after the first 12 months of operation, the rolling, 12-month summations of fuel heat inputs to the combustion turbine and the duct burner.

h. Number of start-ups, type of startup (hot, warm or cold) and the duration, in minutes, of each start-up.

i. Number of shutdowns, and the duration, in hours, of each shutdown.

j. The total number of start-up/shutdown cycles.

k. The NOx, CO, and VOC emissions, in pounds, for all start-up/shutdown cycles.

l. The total NOx emissions, in pounds, including start-up/shutdown emissions.

m. The total CO emissions, in pounds, including start-up/shutdown emissions.

n. The total VOC emissions, in pounds, including start-up/shutdown emissions.

o. The total SO2, PE, NH3, formaldehyde, and sulfuric acid emissions, in pounds.

p. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions.

q. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the CO emissions, in tons, including start-up/shutdown emissions.

r. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions.

s. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summations of the SO2 and PE emissions, in tons.

10. **Phase I and II**: For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements - Phase I and II

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. **Phase I:** The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the Phase I hourly allowable combustion turbine fuel heat input level.

b. During the first 12 months of operation, all exceedances of the Phase I maximum allowable cumulative combustion turbine heat input levels.

c. Beginning after the first 12 months of operation, all exceedances of the Phase I rolling, 12-month allowable combustion turbine fuel heat input level.

d. All exceedances of the Phase I average hourly NOx, CO, PE, SO2, VOC, formaldehyde, and/or sulfuric acid emission limitations.

e. Beginning after the first 12 months of operation, all exceedances of the rolling, 12-month Phase I NOx, CO, PE, SO2, and/or VOC, emission limitations.

f. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.2.

3. **Phase II**: The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the Phase II hourly allowable combustion turbine fuel heat input level.

b. All exceedances of the Phase II hourly allowable duct burner fuel heat input level.

c. During the first 12 months of operation, all exceedances of the Phase II maximum allowable cumulative duct burner heat input levels.

d. Beginning after the first 12 months of operation, all exceedances of the Phase II rolling, 12-month allowable duct burner fuel heat input level.

e. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

f. Any record which shows that the start-up duration exceeded 250 minutes.

g. Any record which shows that the shutdown duration exceeded 2 hours.

h. Any record which shows that the total number of start-up/shutdown cycles exceeded 286.

i. All exceedances of the NOx, CO, and/or VOC start-up/shutdown emission limitations during any cycle.

j. Beginning after the first 12 months of operation, all exceedances of the Phase II rolling, 12-month NOx, CO, VOC, SO2, and/or PE emission limitations.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.2.

4. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s)

taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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 malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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 malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all

instances of continuous O_2 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 malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit annual reports that specify the total NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emissions from this emissions unit during Phase I for the previous calendar year. The reports shall be submitted by February 15 of each year.

8. The permittee shall submit annual reports that specify the total NOx, CO, PE, SO2, VOC, NH3, formaldehyde, and sulfuric acid emissions from this emissions unit during Phase II for the previous calendar year. The reports shall be submitted by February 15 of each year.

9. This emissions unit is subject to the applicable provisions of Subpart Da and GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. 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 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (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, Ohio 43216-3669

and

Ohio Environmental Protection Agency
Southeast District Office

Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138

V. Testing Requirements - Phase I and II

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

a. For Phase I, the emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. For Phase II, the emission testing shall be conducted within 60 days after initiating operation.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentrations, the mass emission limitations for NO_x, CO, formaldehyde, VOC, and PE, and the visible particulate emission limitations.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A and the procedures required under 40 CFR Part 60.335; for PE, Method 5 of 40 CFR Part 60, Appendix A; for visible particulate emission limitations, Method 9 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC, Method 25 of 40 CFR Part 60, Appendix A; and for CO, Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA or local air agency. For Phase II, the emission testing shall be conducted with and without duct burner firing.

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

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

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

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitations:

Phase I:

NO_x emissions shall not exceed 9.0 ppmvd at 15% oxygen, 64.0 lbs/hr, and 54.4 tons/yr.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NOx emission factor (0.0367 lb of NOx/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific NOx emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

NO_x emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr without duct burner firing, 30.0 lbs/hr with duct burner firing, and 146.9 tons/yr, which includes 27.4 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission

limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous NOx and oxygen monitoring systems data required pursuant to section A.III. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

b. Emission Limitations:

Phase I:

PE emissions shall not exceed 18.0 lbs/hr and 15.3 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied PE emission factor (0.0103 lb of PE/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

PE emissions shall not exceed 21.0 lbs/hr without duct burner firing, 25.0 lbs/hr with duct burner firing, and 100.0 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied PE emission factors (0.0120 lb of PE/MMBtu without duct burner firing and 0.01188 lb of PE/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr

emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

c. Emission Limitations:

Phase I:

SO2 emissions shall not exceed 12.0 lbs/hr and 10.2 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO2 emission factor (0.0069 lb of SO2/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific SO2 emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

SO2 emissions shall not exceed 12.0 lbs/hr without duct burner firing, 14.0 lbs/hr with duct burner firing, and 56.6 tons /yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO2 emission factors (0.0069 lb of SO2/MMBtu without duct burner firing and 0.00665 lb of SO2/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

d. Emission Limitations:

Phase I:

VOC emissions shall not exceed 3.2 lbs/hr and 2.7 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied VOC emission factor (0.0018 lb of VOC/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

VOC emissions shall not exceed 3.2 lbs/hr without duct burner firing, 6.8 lbs/hr with duct burner firing, and 31.8 tons/yr, which includes 10.6 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied VOC emission factors (0.0018 lb of VOC/MMBtu without duct burner firing and 0.00323 lb of VOC/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

e. Emission Limitations:

Phase I:

CO emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 28.1 tons/yr.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied CO emission factor (0.01892 lb of CO/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific CO emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

CO emissions shall not exceed 9.0 ppmvd without duct burner firing, 15.0 ppmvd with duct burner firing, 33.0 lbs/hr without duct burner firing, 69.0 lbs/hr with duct burner

firing, and 366.6 tons/yr, which includes 150.1 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentrations, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous CO monitoring system data required pursuant to section A.III. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

f. Emission Limitations:

Phase II:

NH3 emissions shall not exceed 26.0 lbs/hr without duct burner firing, 30.6 lbs/hr with duct burner firing, and 123.1 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NH3 emission factors (0.0149 lb of NH3/MMBtu without duct burner firing and 0.01454 lb of NH3/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

g. Emission Limitations:

Phase I:

Formaldehyde emissions shall not exceed 0.23 lb/hr and 0.20 ton/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied formaldehyde emission factor (0.00013 lb of formaldehyde/MMBtu). Ongoing compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factor established during the emission testing that demonstrated that the emissions unit

was in compliance. Compliance with the ton/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

Formaldehyde emissions shall not exceed 0.23 lb/hr without duct burner firing, 0.26 lb/hr with duct burner firing, and 1.06 tons/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied formaldehyde emission factors (0.00013 lb of formaldehyde/MMBtu without duct burner firing and 0.00012 lb of formaldehyde/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

h. Emission Limitations:

Phase I:

Sulfuric acid emissions shall not exceed 0.48 lb/hr and 0.41 ton/yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factor (0.000275 lb of sulfuric acid/MMBtu). Compliance with the ton/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with U.S. EPA-approved methods.

Phase II:

Emission Limitations:

Sulfuric acid emissions shall not exceed 0.48 lb/hr without duct burner firing, 0.56 lb/hr with duct burner firing, and 2.3 tons/yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factors (0.000275 lb of sulfuric acid/MMBtu without duct burner firing and 0.000266 lb of sulfuric acid/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

i. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on this emissions unit shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy

of the operation and maintenance manual, as provided by the manufacturer.

2. The terms and conditions for this emissions unit supercede those contained in PTI 06-06206 issued March 29, 2001.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
PHASE I		
P001 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine	None	None
PHASE II		
P001 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine with Duct Firing Operated in Combined Cycle Mode and Controlled by Selective Catalytic Reduction (SCR)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P001) was evaluated based on actual materials

(typically coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy) was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (ug/m^3): 368 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 0.81*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.60
MAGLC (ug/m3): 8.76

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lbs/hr): 1.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.74
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (ug/m3): 17413
Maximum Hourly Emission Rate (lbs/hr): 92*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 94.7
MAGLC (ug/m3): 415

* This was modeled for emissions units P001, P002 and P003 combined.

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

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the

above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
The permittee shall collect, record and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment		
PHASE I		
P002 - GE 7FA Natural Gas- Fired Dry Low NOx (DLN) Combustion Turbine		**PHASE II**
		P002 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine with Duct Firing Operated in Combined Cycle Mode and Controlled by Selective Catalytic Reduction (SCR)

Applicable Rules/Requirements		
	40 CFR Part 60, Subpart GG	
	OAC rule 3745-18-06(F)	
OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-21-08(B)	
	OAC rule 3745-23-06(B)	
	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)(3)	
		40 CFR Part 60, Subpart GG
		OAC rule 3745-17-07(A)
		OAC rule 3745-17-11(B)(4)
		OAC rule 3745-18-06(F)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

OAC rules 3745-31-10 through 3745-31-20		
		OAC rule 3745-31-05(A)(3)
OAC rule 3745-31-05(A)(3)		
	40 CFR Part 60, Subpart GG 40 CFR Part 60, Subpart Da OAC rule 3745-18-06(F) OAC rule 3745-17-11 (B)(4) OAC rule 3745-17-07(A) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B) OAC rules 3745-31-10 through 3745-31-20	

Applicable Emission Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20.	shall not exceed 0.23 lb/hr and 0.20 ton/yr. Sulfuric acid emissions shall not exceed 0.48 lb/hr and 0.41 ton/yr. Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average. See A.II.1 and A.II.3 below.	include compliance with the requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20. Nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr, and 146.9 tons/yr, including start-up and shutdown emissions. Particulate emissions (PE) shall not exceed 21.0 lbs/hr and 100.0 tons/yr.
PHASE I EMISSION LIMITATIONS	See A.I.2.b below.	Sulfur dioxide (SO_2) emissions shall not exceed 12.0 lbs/hr and 56.6 tons/yr.
Nitrogen oxides (NO_x) emissions shall not exceed 9.0 ppmvd at 15% oxygen, 64.0 lbs/hr, and 54.4 tons/yr.	See A.I.2.a below.	Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 366.6 tons/yr, including start-up and shutdown emissions.
Particulate emissions (PE) shall not exceed 18.0 lbs/hr and 15.3 tons/yr.	See A.I.2.d below.	Volatile organic compound (VOC) emissions shall not exceed 3.2 lbs/hr and 31.8 tons/yr, including start-up and shutdown emissions.
Sulfur dioxide (SO_2) emissions shall not exceed 12.0 lbs/hr and 10.2 tons/yr.	NOx emissions shall not exceed 54.4 tons per rolling, 12-month period. SO2 emissions shall not exceed 10.2 tons per rolling, 12-month period. PE emissions shall not exceed 15.3 tons per rolling, 12-month period.	Ammonia (NH3) emissions shall not exceed 26.0 lbs/hr and 123.1 tons/yr.
Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 28.1 tons/yr.	CO emissions shall not exceed 28.1 tons per rolling, 12-month period. VOC emissions shall not exceed 2.7 tons per rolling, 12-month period.	Formaldehyde emissions shall not exceed 0.23 lb/hr and 1.06 tons/yr. Sulfuric acid emissions shall not exceed 0.48 lb/hr and 2.3 tons/yr.
Volatile organic compound (VOC) emissions shall not exceed 3.2 lbs/hr and 2.7 tons/yr.	**EMISSION LIMITATIONS WITHOUT DUCT BURNER FIRING - PHASE II**	Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.
Formaldehyde emissions	The requirements of this rule also	See A.II.1 and A.II.4 below.

See A.I.2.b below.	tons/yr, including start-up and shutdown emissions.	
See A.I.2.a below.	Particulate emissions (PE) shall not exceed 25.0 lbs/hr and 100.0 tons/yr.	NOx emissions shall not exceed 149.6 tons per rolling, 12-month period. SO2 emissions shall not exceed 56.6 tons per rolling, 12-month period. PE emissions shall not exceed 100.0 tons per rolling, 12-month period. CO emissions shall not exceed 366.6 tons per rolling, 12-month period. VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.
See A.I.2.d below.	Sulfur dioxide (SO_2) emissions shall not exceed 14.0 lbs/hr and 56.6 tons/yr.	
NOx emissions shall not exceed 149.6 tons per rolling, 12-month period. SO2 emissions shall not exceed 56.6 tons per rolling, 12-month period. PE emissions shall not exceed 100.0 tons per rolling, 12-month period. CO emissions shall not exceed 366.6 tons per rolling, 12-month period. VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.	Carbon monoxide (CO) emissions shall not exceed 15.0 ppmvd, 69.0 lbs/hr, and 366.6 tons/yr, including start-up and shutdown emissions.	**START-UP AND SHUTDOWN EMISSION LIMITATIONS - PHASE II** (See A.II.2 below.) Nitrogen oxides (NO_x) emissions shall not exceed 418 lbs/cycle and 27.4 tons/yr. Carbon monoxide (CO) emissions shall not exceed 1127 lbs/cycle and 150.1 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 97 lbs/cycle and 10.6 tons/yr.
	Volatile organic compound (VOC) emissions shall not exceed 6.8 lbs/hr and 31.8 tons/yr, including start-up and shutdown emissions.	
	Ammonia (NH3) emissions shall not exceed 30.6 lbs/hr and 123.1 tons/yr.	
	Formaldehyde emissions shall not exceed 0.26 lb/hr and 1.06 tons/yr.	
EMISSION LIMITATIONS WITH DUCT BURNER FIRING - PHASE II	Sulfuric acid emissions shall not exceed 0.56 lb/hr and 2.3 tons/yr.	
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts Da and GG, and OAC rules 3745-31-10 through 3745-31-20.	Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average. See A.II.1 and A.II.4 below.	
	See A.I.2.b below.	
	See A.I.2.a below.	
Nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 30.0 lbs/hr, and 146.9	See A.I.2.d below.	

2. Additional Terms and Conditions

2.a The emission limitations specified in these applicable rules are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2.b The emission limitations specified in this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC Chapter 103 and 40 CFR Parts 72 and 75 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.

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) and 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 this Permit to Install.

2.e In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60, Subpart GG (section 60.334(b)), the permittee may install and operate systems to continuously monitor and record emissions of NOx from this emissions unit during Phase I operations.

2.f After the NOx continuous emissions monitoring system for this emissions unit is installed and certified, the permittee shall submit excess emissions reports for this emissions unit in accordance with this permit, in lieu of the excess emissions reports required under 40 CFR Part 60.334.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.

2. Start-up and shutdown shall be defined as when the unit is running at less than 50% of electric load, but under no circumstances shall start-ups exceed 250 minutes in duration and shutdowns shall not exceed 2 hours in duration. The total of all hot, warm and cold start-ups (as defined

below) and shutdowns shall be limited to 286 cycles (each cycle consists of one start-up and one shutdown) per year.

Hot Start - start-up occurs within 8 hours after a plant shutdown
Warm Start - start-up occurs between 8 to 72 hours after a plant shutdown
Cold Start - start-up occurs more than 72 hours after a plant shutdown

Each cycle shall be limited to the following:

Pollutant	Total lbs/Cycle
NOx	418
CO	1127
VOC	97

During Phase I, start-up and shutdown emissions are not anticipated to increase above levels defined during normal operation of a simple cycle turbine.

3. During Phase I, the maximum hourly fuel heat input for this emissions unit shall not exceed 1744.3 MMBtu/hr and the annual maximum fuel heat input shall not exceed 2,965,310 MMBtu per year based upon a rolling, 12-month summation of the heat input values. Due to this operational restriction, this gas-fired peaking unit will not have to install the applicable continuous emission monitoring systems specified in 40 CFR Part 75 until Phase II.
To ensure enforceability during the first 12 calendar months following the start-up of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,297,759
1-2	2,595,518
1-3	2,965,310
1-4	2,965,310
1-5	2,965,310
1-6	2,965,310
1-7	2,965,310
1-8	2,965,310
1-9	2,965,310

1-10	2,965,310
1-11	2,965,310
1-12	2,965,310

If Phase I extends beyond the first 12 calendar months following the start-up of this emissions unit, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

4. During Phase II, the maximum hourly combustion turbine fuel heat input shall not exceed 1744.3 MMBtu/hr.

The maximum hourly fuel heat input of the duct burner for this emissions unit shall not exceed 360 MMBtu/hr. The maximum annual fuel heat input of the duct burner shall not exceed 1,440,000 MMBtu per year, based upon a rolling, 12-month summation of the heat input values.

To ensure enforceability during the first 12 calendar months following the start-up of the duct burner, the permittee shall not exceed the monthly duct burner fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	267,840
1-2	535,680
1-3	803,520
1-4	1,071,360
1-5	1,440,000
1-6	1,440,000
1-7	1,440,000
1-8	1,440,000
1-9	1,440,000
1-10	1,440,000
1-11	1,440,000
1-12	1,440,000

After the first 12 calendar months following the start-up of the duct burner, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

5. <u>Continuous NOx Monitoring System Certification</u>

Prior to the installation of the continuous NO_x monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting

requirements in 40 CFR Part 60, Appendix B, Performance Specification 2 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, and 40 CFR Part 75.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

7. <u>Continuous CO Monitoring System Certification</u>

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be

submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous O_2 Monitoring System
Certification

Prior to the installation of the continuous O_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office.

Certification of the continuous O_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 monitoring system designed to ensure

continuous valid and representative readings of O_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous O_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. **Phase I**: The permittee shall maintain monthly records of the following information for this emissions unit:

a. The natural gas usage rate, in standard cubic feet.

b. Hours of operation of the combustion turbine.

c. Monthly fuel heat input (MMBtu) to the combustion turbine.

d. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine.

e. Beginning after the first 12 months of operation, the rolling, 12-month summation of fuel heat input to the combustion turbine.

f. The NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emission rates, in lbs.

g. The average hourly NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emission rates, in lbs (i.e., the values from (f) divided by (b)).

h. Beginning after the first 12 months of operation, the rolling, 12-month summations of the NOx, CO, PE, SO2, and VOC emission rates, in tons.

2. **Phase I:** The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.6 and fuel gross calorific value as determined in term A.III.7. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

3. The permittee shall install, operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard. This NO_x monitoring equipment must be installed for Phase II operation. The NO_x monitoring equipment may be used during Phase I in order to minimize or eliminate fuel nitrogen content sampling requirements specified in 40 CFR Part 60, Subpart GG. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (i.e., ppmvd at 15% oxygen and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., ppmvd and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, operate and maintain equipment to continuously monitor and record O_2 emissions from this emissions unit in percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 monitoring system including, but not limited to, percent O_2 on an instantaneous (one-minute) basis, emissions of O_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. **Phase I and II**: The permittee shall install, 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.

7. **Phase I and II:** The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D, section 2.3.3.1.

8. **Phase II**: The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.6 and fuel gross calorific value as determined in term A.III.7. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

9. **Phase II**: The permittee shall maintain monthly records of the following information for this emissions unit:

a. The natural gas usage rate, in standard cubic feet.

b. Hours of operation of the combustion turbine.

c. Hours of operation of the duct burner.

d. Monthly fuel heat input (MMBtu) to the combustion turbine.

e. Monthly fuel heat input (MMBtu) to the duct burner.

f. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine and the duct burner.

g. Beginning after the first 12 months of operation, the rolling, 12-month summations of fuel heat inputs to the combustion turbine and the duct burner.

h. Number of start-ups, type of startup (hot, warm or cold) and the duration, in minutes, of each start-up.

i. Number of shutdowns, and the duration, in hours, of each shutdown.

j. The total number of start-up/shutdown cycles.

k. The NOx, CO, and VOC emissions, in pounds, for all start-up/shutdown cycles.

l. The total NOx emissions, in pounds, including start-up/shutdown emissions.

m. The total CO emissions, in pounds, including start-up/shutdown emissions.

n. The total VOC emissions, in pounds, including start-up/shutdown emissions.

o. The total SO2, PE, NH3, formaldehyde, and sulfuric acid emissions, in pounds.

p. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions.

q. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the CO emissions, in tons, including start-up/shutdown emissions.

r. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions.

s. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summations of the SO2 and PE emissions, in tons.

10. **Phase I and II**: For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements - Phase I and II

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. **Phase I:** The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the Phase I hourly allowable combustion turbine fuel heat input level.

b. During the first 12 months of operation, all exceedances of the Phase I maximum allowable cumulative combustion turbine heat input levels.

c. Beginning after the first 12 months of operation, all exceedances of the Phase I rolling, 12-month allowable combustion turbine fuel heat input level.

d. All exceedances of the Phase I average hourly NOx, CO, PE, SO2, VOC, formaldehyde, and/or sulfuric acid emission limitations.

e. Beginning after the first 12 months of operation, all exceedances of the rolling, 12-month Phase I NOx, CO, PE, SO2, and/or VOC, emission limitations.

f. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.2.

3. **Phase II**: The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the Phase II hourly allowable combustion turbine fuel heat input level.

b. All exceedances of the Phase II hourly allowable duct burner fuel heat input level.

c. During the first 12 months of operation, all exceedances of the Phase II maximum allowable cumulative duct burner heat input levels.

d. Beginning after the first 12 months of operation, all exceedances of the Phase II rolling, 12-month allowable duct burner fuel heat input level.

e. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

f. Any record which shows that the start-up duration exceeded 250 minutes.

g. Any record which shows that the shutdown duration exceeded 2 hours.

h. Any record which shows that the total number of start-up/shutdown cycles exceeded 286.

i. All exceedances of the NOx, CO, and/or VOC start-up/shutdown emission limitations during any cycle.

j. Beginning after the first 12 months of operation, all exceedances of the Phase II rolling, 12-month NOx, CO, VOC, SO2, and/or PE emission limitations.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.2.

4. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit

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

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 malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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 malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 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 malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit annual reports that specify the total NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emissions from this emissions unit during Phase I for the previous calendar year. The reports shall be submitted by February 15 of each year.

8. The permittee shall submit annual reports that specify the total NOx, CO, PE, SO2, VOC, NH3, formaldehyde, and sulfuric acid emissions from this emissions unit during Phase II for the previous calendar year. The reports shall be submitted by February 15 of each year.

9. This emissions unit is subject to the applicable provisions of Subpart Da and GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. 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 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (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, Ohio 43216-3669

and

Ohio Environmental Protection Agency

Southeast District Office
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138

V. Testing Requirements - Phase I and II

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

a. For Phase I, the emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of the emissions unit. For Phase II, the emission testing shall be conducted within 60 days after initiating operation.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentrations, the mass emission limitations for NO_x, CO, formaldehyde, VOC, and PE, and the visible particulate emission limitations.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A and the procedures required under 40 CFR Part 60.335; for PE, Method 5 of 40 CFR Part 60, Appendix A; for visible particulate emission limitations, Method 9 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC, Method 25 of 40 CFR Part 60, Appendix A; and for CO, Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA or local air agency. For Phase II, the emission testing shall be conducted with and without duct burner firing.

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

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

control equipment.

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

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitations:

Phase I:

NO_x emissions shall not exceed 9.0 ppmvd at 15% oxygen, 64.0 lbs/hr, and 54.4 tons/yr.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NOx emission factor (0.0367 lb of NOx/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific NOx emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

NO_x emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr without duct burner firing, 30.0 lbs/hr with duct burner firing, and 146.9 tons/yr, which includes 27.4 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous NOx and oxygen monitoring systems data required pursuant to section A.III. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

b. Emission Limitations:

Phase I:

PE emissions shall not exceed 18.0 lbs/hr and 15.3 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied PE emission factor (0.0103 lb of PE/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

PE emissions shall not exceed 21.0 lbs/hr without duct burner firing, 25.0 lbs/hr with duct burner firing, and 100.0 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied PE emission factors (0.0120 lb of PE/MMBtu without duct burner firing and 0.01188 lb of PE/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factors established during the emission testing

that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

c. Emission Limitations:

Phase I:

SO2 emissions shall not exceed 12.0 lbs/hr, and 10.2 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO2 emission factor (0.0069 lb of SO2/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific SO2 emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

SO2 emissions shall not exceed 12.0 lbs/hr without duct burner firing, 14.0 lbs/hr with duct burner firing, and 56.6 tons /yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO2 emission factors (0.0069 lb of SO2/MMBtu without duct burner firing and 0.00665 lb of SO2/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

d. Emission Limitations:

Phase I:

VOC emissions shall not exceed 3.2 lbs/hr and 2.7 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied VOC emission factor (0.0018 lb of VOC/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

VOC emissions shall not exceed 3.2 lbs/hr without duct burner firing, 6.8 lbs/hr with duct burner firing, and 31.8 tons/yr, which includes 10.6 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied VOC emission factors (0.0018 lb of VOC/MMBtu without duct burner firing and 0.00323 lb of VOC/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

e. Emission Limitations:

Phase I:

CO emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 28.1 tons/yr.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied CO emission factor (0.01892 lb of CO/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific CO emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

CO emissions shall not exceed 9.0 ppmvd without duct burner firing, 15.0 ppmvd with duct burner firing, 33.0 lbs/hr without duct burner firing, 69.0 lbs/hr with duct burner

firing, and 366.6 tons/yr, which includes 150.1 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentrations, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous CO monitoring system data required pursuant to section A.III. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

f. Emission Limitations:

Phase II:

NH3 emissions shall not exceed 26.0 lbs/hr without duct burner firing, 30.6 lbs/hr with duct burner firing, and 123.1 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NH3 emission factors (0.0149 lb of NH3/MMBtu without duct burner firing and 0.01454 lb of NH3/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

g. Emission Limitations:

Phase I:

Formaldehyde emissions shall not exceed 0.23 lb/hr and 0.20 ton/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied formaldehyde emission factor (0.00013 lb of formaldehyde/MMBtu). Ongoing

compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the ton/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

Formaldehyde emissions shall not exceed 0.23 lb/hr without duct burner firing, 0.26 lb/hr with duct burner firing, and 1.06 tons/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied formaldehyde emission factors (0.00013 lb of formaldehyde/MMBtu without duct burner firing and 0.00012 lb of formaldehyde/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

h. Emission Limitations:

Phase I:

Sulfuric acid emissions shall not exceed 0.48 lb/hr and 0.41 ton /yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factor

(0.000275 lb of sulfuric acid/MMBtu). Compliance with the ton/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with U.S. EPA-approved methods.

Phase II:

Emission Limitations:

Sulfuric acid emissions shall not exceed 0.48 lb/hr without duct burner firing, 0.56 lb/hr with duct burner firing, and 2.3 tons/yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factors (0.000275 lb of sulfuric acid/MMBtu without duct burner firing and 0.000266 lb of sulfuric acid/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

i. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on this emissions unit shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.

2. The terms and conditions for this emissions unit supercede those contained in PTI 06-06206 issued March 29, 2001.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
PHASE I		
P002 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine	None	None
PHASE II		
P002 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine with Duct Firing Operated in Combined Cycle Mode and Controlled by Selective Catalytic Reduction (SCR)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P002) was evaluated based on actual materials

(typically coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy) was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (ug/m^3): 368 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 0.81*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.60
MAGLC (ug/m3): 8.76

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lbs/hr): 1.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.74
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (ug/m3): 17413
Maximum Hourly Emission Rate (lbs/hr): 92*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 94.7
MAGLC (ug/m3): 415

* This was modeled for emissions units P001, P002 and P003 combined.

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

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the

above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.

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

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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.

Operations, Property, and/or Equipment		
PHASE I		
P003 - GE 7FA Natural Gas- Fired Dry Low NOx (DLN) Combustion Turbine		**PHASE II**
		P003 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine with Duct Firing Operated in Combined Cycle Mode and Controlled by Selective Catalytic Reduction (SCR)

Applicable Rules/Requirements		
	40 CFR Part 60, Subpart GG	
	OAC rule 3745-18-06(F)	
OAC rule 3745-31-05(A)(3)	OAC rule 3745-17-11(B)(4)	
	OAC rule 3745-17-07(A)	
	OAC rule 3745-21-08(B)	
	OAC rule 3745-23-06(B)	
	OAC rule 3745-31-05(D)	
	OAC rule 3745-31-05(A)(3)	
		40 CFR Part 60, Subpart GG
		OAC rule 3745-17-07(A)
		OAC rule 3745-17-11(B)(4)
		OAC rule 3745-18-06(F)
		OAC rule 3745-21-08(B)
		OAC rule 3745-23-06(B)

OAC rules 3745-31-10 through 3745-31-20		
		OAC rule 3745-31-05(A)(3)
OAC rule 3745-31-05(A)(3)		
	40 CFR Part 60, Subpart GG 40 CFR Part 60, Subpart Da OAC rule 3745-18-06(F) OAC rule 3745-17-11 (B)(4) OAC rule 3745-17-07(A) OAC rule 3745-21-08(B) OAC rule 3745-23-06(B) OAC rules 3745-31-10 through 3745-31-20	

Applicable Emission Limitations/Control Measures		
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20.	shall not exceed 0.23 lb/hr and 0.20 ton/yr. Sulfuric acid emissions shall not exceed 0.48 lb/hr and 0.41 ton/yr. Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average. See A.II.1 and A.II.3 below.	include compliance with the requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20. Nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr, and 146.9 tons/yr, including start-up and shutdown emissions. Particulate emissions (PE) shall not exceed 21.0 lbs/hr and 100.0 tons/yr.
PHASE I EMISSION LIMITATIONS	See A.I.2.b below.	Sulfur dioxide (SO_2) emissions shall not exceed 12.0 lbs/hr and 56.6 tons/yr.
Nitrogen oxides (NO_x) emissions shall not exceed 9.0 ppmvd at 15% oxygen, 64.0 lbs/hr, and 54.4 tons/yr.	See A.I.2.a below.	Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 366.6 tons/yr, including start-up and shutdown emissions.
Particulate emissions (PE) shall not exceed 18.0 lbs/hr and 15.3 tons/yr.	See A.I.2.d below.	Volatile organic compound (VOC) emissions shall not exceed 3.2 lbs/hr and 31.8 tons/yr, including start-up and shutdown emissions.
Sulfur dioxide (SO_2) emissions shall not exceed 12.0 lbs/hr and 10.2 tons/yr.	NOx emissions shall not exceed 54.4 tons per rolling, 12-month period. SO2 emissions shall not exceed 10.2 tons per rolling, 12-month period. PE emissions shall not exceed 15.3 tons per rolling, 12-month period.	Ammonia (NH3) emissions shall not exceed 26.0 lbs/hr and 123.1 tons/yr.
Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 28.1 tons/yr.	CO emissions shall not exceed 28.1 tons per rolling, 12-month period. VOC emissions shall not exceed 2.7 tons per rolling, 12-month period.	Formaldehyde emissions shall not exceed 0.23 lb/hr and 1.06 tons/yr. Sulfuric acid emissions shall not exceed 0.48 lb/hr and 2.3 tons/yr.
Volatile organic compound (VOC) emissions shall not exceed 3.2 lbs/hr and 2.7 tons/yr.	**EMISSION LIMITATIONS WITHOUT DUCT BURNER FIRING - PHASE II**	Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.
Formaldehyde emissions	The requirements of this rule also	See A.II.1 and A.II.4 below.

See A.I.2.b below.	tons/yr, including start-up and shutdown emissions.	
See A.I.2.a below.	Particulate emissions (PE) shall not exceed 25.0 lbs/hr and 100.0 tons/yr.	NOx emissions shall not exceed 149.6 tons per rolling, 12-month period. SO2 emissions shall not exceed 56.6 tons per rolling, 12-month period. PE emissions shall not exceed 100.0 tons per rolling, 12-month period. CO emissions shall not exceed 366.6 tons per rolling, 12-month period. VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.
See A.I.2.d below.	Sulfur dioxide (SO_2) emissions shall not exceed 14.0 lbs/hr and 56.6 tons/yr.	
NOx emissions shall not exceed 149.6 tons per rolling, 12-month period. SO2 emissions shall not exceed 56.6 tons per rolling, 12-month period. PE emissions shall not exceed 100.0 tons per rolling, 12-month period. CO emissions shall not exceed 366.6 tons per rolling, 12-month period. VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.	Carbon monoxide (CO) emissions shall not exceed 15.0 ppmvd, 69.0 lbs/hr, and 366.6 tons/yr, including start-up and shutdown emissions.	**START-UP AND SHUTDOWN EMISSION LIMITATIONS - PHASE II** (See A.II.2 below.) Nitrogen oxides (NO_x) emissions shall not exceed 418 lbs/cycle and 27.4 tons/yr. Carbon monoxide (CO) emissions shall not exceed 1127 lbs/cycle and 150.1 tons/yr. Volatile organic compound (VOC) emissions shall not exceed 97 lbs/cycle and 10.6 tons/yr.
	Volatile organic compound (VOC) emissions shall not exceed 6.8 lbs/hr and 31.8 tons/yr, including start-up and shutdown emissions.	
	Ammonia (NH3) emissions shall not exceed 30.6 lbs/hr and 123.1 tons/yr.	
	Formaldehyde emissions shall not exceed 0.26 lb/hr and 1.06 tons/yr.	
EMISSION LIMITATIONS WITH DUCT BURNER FIRING - PHASE II	Sulfuric acid emissions shall not exceed 0.56 lb/hr and 2.3 tons/yr.	
The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts Da and GG, and OAC rules 3745-31-10 through 3745-31-20.	Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average. See A.II.1 and A.II.4 below.	
	See A.I.2.b below.	
	See A.I.2.a below.	
Nitrogen oxides (NO_x) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 30.0 lbs/hr, and 146.9	See A.I.2.d below.	

2. Additional Terms and Conditions

2.a The emission limitations specified in these applicable rules are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).

2.b The emission limitations specified in this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC Chapter 103 and 40 CFR Parts 72 and 75 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.

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) and 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 this Permit to Install.

2.e In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60, Subpart GG (section 60.334(b)), the permittee may install and operate systems to continuously monitor and record emissions of NOx from this emissions unit during Phase I operations.

2.f After the NOx continuous emissions monitoring system for this emissions unit is installed and certified, the permittee shall submit excess emissions reports for this emissions unit in accordance with this permit, in lieu of the excess emissions reports required under 40 CFR Part 60.334.

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.

2. Start-up and shutdown shall be defined as when the unit is running at less than 50% of electric load, but under no circumstances shall start-ups exceed 250 minutes in duration and shutdowns shall not exceed 2 hours in duration. The total of all hot, warm and cold start-ups (as defined

below) and shutdowns shall be limited to 286 cycles (each cycle consists of one start-up and one shutdown) per year.

Hot Start - start-up occurs within 8 hours after a plant shutdown
Warm Start - start-up occurs between 8 to 72 hours after a plant shutdown
Cold Start - start-up occurs more than 72 hours after a plant shutdown

Each cycle shall be limited to the following:

Pollutant	Total lbs/Cycle
NOx	418
CO	1127
VOC	97

During Phase I, start-up and shutdown emissions are not anticipated to increase above levels defined during normal operation of a simple cycle turbine.

3. During Phase I, the maximum hourly fuel heat input for this emissions unit shall not exceed 1744.3 MMBtu/hr and the annual maximum fuel heat input shall not exceed 2,965,310 MMBtu per year based upon a rolling, 12-month summation of the heat input values. Due to this operational restriction, this gas-fired peaking unit will not have to install the applicable continuous emission monitoring systems specified in 40 CFR Part 75 until Phase II.
To ensure enforceability during the first 12 calendar months following the start-up of this emissions unit, the permittee shall not exceed the monthly heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	1,297,759
1-2	2,595,518
1-3	2,965,310
1-4	2,965,310
1-5	2,965,310
1-6	2,965,310
1-7	2,965,310
1-8	2,965,310
1-9	2,965,310
1-10	2,965,310
1-11	2,965,310
1-12	2,965,310

If Phase I extends beyond the first 12 calendar months following the start-up of this emissions unit, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

4. During Phase II, the maximum hourly combustion turbine fuel heat input shall not exceed 1744.3 MMBtu/hr.

The maximum hourly fuel heat input of the duct burner for this emissions unit shall not exceed 360 MMBtu/hr. The maximum annual fuel heat input of the duct burner shall not exceed 1,440,000 MMBtu per year, based upon a rolling, 12-month summation of the heat input values.

To ensure enforceability during the first 12 calendar months following the start-up of the duct burner, the permittee shall not exceed the monthly duct burner fuel heat input restrictions specified in the following table:

Month	Cumulative Fuel Heat Input (MMBtu)
1	267,840
1-2	535,680
1-3	803,520
1-4	1,071,360
1-5	1,440,000
1-6	1,440,000
1-7	1,440,000
1-8	1,440,000
1-9	1,440,000
1-10	1,440,000
1-11	1,440,000
1-12	1,440,000

After the first 12 calendar months following the start-up of the duct burner, compliance with the annual fuel heat input restriction shall be based on a rolling, 12-month summation of the heat input values.

5. <u>Continuous NOx Monitoring System Certification</u>

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

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, and 40 CFR Part 75.

6. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

7. <u>Continuous CO Monitoring System Certification</u>

Prior to the installation of the continuous CO monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 4 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of the continuous CO monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office. Certification of the continuous CO

monitoring system shall be granted upon determination by the Ohio EPA Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 4.

8. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.

9. Continuous O_2 Monitoring System Certification

Prior to the installation of the continuous O_2 monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 3 for approval by the Ohio EPA, Central Office.

Within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial start-up of such emissions unit, the permittee shall conduct certification tests of such equipment pursuant to the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75. Personnel from the appropriate Ohio EPA District Office or local air agency shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days after the test is completed. Copies of the test results shall be sent to the appropriate Ohio EPA District Office or local air agency and the Ohio EPA, Central Office.

Certification of the continuous O_2 monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate sections of ORC section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 3, and 40 CFR Part 75.

10. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous O_2 monitoring system designed to ensure continuous valid and representative readings of O_2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook

dedicated to the continuous O_2 monitoring system must be kept on site and available for inspection during regular office hours.

III. Monitoring and/or Recordkeeping Requirements

1. **Phase I**: The permittee shall maintain monthly records of the following information for this emissions unit:

a. The natural gas usage rate, in standard cubic feet.

b. Hours of operation of the combustion turbine.

c. Monthly fuel heat input (MMBtu) to the combustion turbine.

d. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine.

e. Beginning after the first 12 months of operation, the rolling, 12-month summation of fuel heat input to the combustion turbine.

f. The NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emission rates, in lbs.

g. The average hourly NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emission rates, in lbs (i.e., the values from (f) divided by (b)).

h. Beginning after the first 12 months of operation, the rolling, 12-month summations of the NOx, CO, PE, SO2, and VOC emission rates, in tons.

2. **Phase I:** The permittee shall determine the hourly heat input rate to the combustion turbine from the fuel flow rate as determined in term A.III.6 and fuel gross calorific value as determined in term A.III.7. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

3. The permittee shall install, operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard. This NO_x monitoring equipment must be installed for Phase II operation. The NO_x monitoring equipment may be used during Phase I in order to minimize or eliminate fuel nitrogen content sampling requirements specified in 40 CFR Part 60, Subpart GG. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period (i.e.,

ppmvd at 15% oxygen and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

4. The permittee shall install, operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period (i.e., ppmvd and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall install, operate and maintain equipment to continuously monitor and record O_2 emissions from this emissions unit in percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O_2 monitoring system including, but not limited to, percent O_2 on an instantaneous (one-minute) basis, emissions of O_2 in units of the applicable standard in the appropriate averaging period (e.g., hourly, hourly rolling, 3-hour, daily, 30-day rolling, etc.), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

6. **Phase I and II**: The permittee shall install, 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.

7. **Phase I and II:** The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. Fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D, section 2.3.3.1.

8. **Phase II**: The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined in term A.III.6 and fuel gross calorific value as determined in term A.III.7. The heat input rate shall be calculated in accordance with the procedures in Section 5 of 40 CFR Part 75, Appendix F.

9. **Phase II**: The permittee shall maintain monthly records of the following information for this emissions unit:

a. The natural gas usage rate, in standard cubic feet.

b. Hours of operation of the combustion turbine.

c. Hours of operation of the duct burner.

d. Monthly fuel heat input (MMBtu) to the combustion turbine.

e. Monthly fuel heat input (MMBtu) to the duct burner.

f. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine and the duct burner.

g. Beginning after the first 12 months of operation, the rolling, 12-month summations of fuel heat inputs to the combustion turbine and the duct burner.

h. Number of start-ups, type of startup (hot, warm or cold) and the duration, in minutes, of each start-up.

i. Number of shutdowns, and the duration, in hours, of each shutdown.

j. The total number of start-up/shutdown cycles.

k. The NOx, CO, and VOC emissions, in pounds, for all start-up/shutdown cycles.

l. The total NOx emissions, in pounds, including start-up/shutdown emissions.

m. The total CO emissions, in pounds, including start-up/shutdown emissions.

n. The total VOC emissions, in pounds, including start-up/shutdown emissions.

o. The total SO2, PE, NH3, formaldehyde, and sulfuric acid emissions, in pounds.

p. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions.

q. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the CO emissions, in tons, including start-up/shutdown emissions.

r. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions.

s. Beginning after the first 12 months of operation under Phase II , the rolling, 12-month summations of the SO2 and PE emissions, in tons.

10. **Phase I and II**: For each day during which the permittee burns a fuel other than natural gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.

IV. Reporting Requirements - Phase I and II

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurred.

2. **Phase I:** The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the Phase I hourly allowable combustion turbine fuel heat input level.

b. During the first 12 months of operation, all exceedances of the Phase I maximum allowable cumulative combustion turbine heat input levels.

c. Beginning after the first 12 months of operation, all exceedances of the Phase I rolling, 12-month allowable combustion turbine fuel heat input level.

d. All exceedances of the Phase I average hourly NOx, CO, PE, SO2, VOC, formaldehyde, and/or sulfuric acid emission limitations.

e. Beginning after the first 12 months of operation, all exceedances of the rolling, 12-month Phase I NOx, CO, PE, SO2, and/or VOC, emission limitations.

f. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.2.

3. **Phase II**: The permittee shall submit quarterly deviation (excursion) reports that identify the following:

a. All exceedances of the Phase II hourly allowable combustion turbine fuel heat input level.

b. All exceedances of the Phase II hourly allowable duct burner fuel heat input level.

c. During the first 12 months of operation, all exceedances of the Phase II maximum allowable cumulative duct burner heat input levels.

d. Beginning after the first 12 months of operation, all exceedances of the Phase II rolling, 12-month allowable duct burner fuel heat input level.

e. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

f. Any record which shows that the start-up duration exceeded 250 minutes.

g. Any record which shows that the shutdown duration exceeded 2 hours.

h. Any record which shows that the total number of start-up/shutdown cycles exceeded 286.

i. All exceedances of the NOx, CO, and/or VOC start-up/shutdown emission limitations during any cycle.

j. Beginning after the first 12 months of operation, all exceedances of the Phase II rolling, 12-month NOx, CO, VOC, SO2, and/or PE emission limitations.

The quarterly deviation reports shall be submitted in accordance with General Term and Condition A.2.

4. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NO_x monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the

emissions unit was on line shall also be included in the quarterly report.

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 malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

5. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous CO monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

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 malfunction. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

6. Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(I) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of continuous O_2 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 malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

7. The permittee shall submit annual reports that specify the total NOx, CO, PE, SO2, VOC, formaldehyde, and sulfuric acid emissions from this emissions unit during Phase I for the previous

calendar year. The reports shall be submitted by February 15 of each year.

8. The permittee shall submit annual reports that specify the total NOx, CO, PE, SO2, VOC, NH3, formaldehyde, and sulfuric acid emissions from this emissions unit during Phase II for the previous calendar year. The reports shall be submitted by February 15 of each year.

9. This emissions unit is subject to the applicable provisions of Subpart Da and GG of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. 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 40 CFR Part 60.7, the permittee is hereby advised of the requirement to report the following at the appropriate times:

a. construction date (no later than 30 days after such date);

b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);

c. actual start-up date (within 15 days after such date); and,

d. date of performance testing (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, Ohio 43216-3669

and

Ohio Environmental Protection Agency
Southeast District Office
Division of Air Pollution Control
2195 Front Street
Logan, Ohio 43138

V. Testing Requirements - Phase I and II

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

a. For Phase I, the emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than

180 days after initial start-up of the emissions unit. For Phase II, the emission testing shall be conducted within 60 days after initiating operation.

b. The emission testing shall be conducted to demonstrate compliance with the NO_x and CO outlet concentrations, the mass emission limitations for NO_x, CO, formaldehyde, VOC, and PE, and the visible particulate emission limitations.

c. The following test methods shall be employed to demonstrate compliance with the above emission limitations: for NO_x, Method 20 of 40 CFR Part 60, Appendix A and the procedures required under 40 CFR Part 60.335; for PE, Method 5 of 40 CFR Part 60, Appendix A; for visible particulate emission limitations, Method 9 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC, Method 25 of 40 CFR Part 60, Appendix A; and for CO, Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA or local air agency. For Phase II, the emission testing shall be conducted with and without duct burner firing.

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

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

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

2. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitations:

Phase I:

NO_x emissions shall not exceed 9.0 ppmvd at 15% oxygen, 64.0 lbs/hr, and 54.4 tons/yr.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NOx emission factor (0.0367 lb of NOx/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific NOx emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

NO_x emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr without duct burner firing, 30.0 lbs/hr with duct burner firing, and 146.9 tons/yr, which includes 27.4 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous NOx and oxygen monitoring systems data required pursuant to section A.III. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

b. Emission Limitations:

Phase I:

PE emissions shall not exceed 18.0 lbs/hr and 15.3 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied PE emission factor (0.0103 lb of PE/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

PE emissions shall not exceed 21.0 lbs/hr without duct burner firing, 25.0 lbs/hr with duct burner firing, and 100.0 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied PE emission factors (0.0120 lb of PE/MMBtu without duct burner firing and 0.01188 lb of PE/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

c. Emission Limitations:

Phase I:

SO2 emissions shall not exceed 12.0 lbs/hr, and 10.2 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO2 emission factor (0.0069 lb of SO2/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific SO2 emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

SO2 emissions shall not exceed 12.0 lbs/hr without duct burner firing, 14.0 lbs/hr with duct burner firing, and 56.6 tons /yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO2 emission factors (0.0069 lb of SO2/MMBtu without duct burner firing and 0.00665 lb of SO2/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

d. Emission Limitations:

Phase I:

VOC emissions shall not exceed 3.2 lbs/hr and 2.7 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied VOC emission factor (0.0018 lb of VOC/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factor established during the emission

testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

VOC emissions shall not exceed 3.2 lbs/hr without duct burner firing, 6.8 lbs/hr with duct burner firing, and 31.8 tons/yr, which includes 10.6 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied VOC emission factors (0.0018 lb of VOC/MMBtu without duct burner firing and 0.00323 lb of VOC/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

e. Emission Limitations:

Phase I:

CO emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and 28.1 tons/yr.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied CO emission factor (0.01892 lb of CO/MMBtu). Ongoing compliance with the lbs/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific CO emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

CO emissions shall not exceed 9.0 ppmvd without duct burner firing, 15.0 ppmvd with duct burner firing, 33.0 lbs/hr without duct burner firing, 69.0 lbs/hr with duct burner

firing, and 366.6 tons/yr, which includes 150.1 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentrations, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous CO monitoring system data required pursuant to section A.III. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III.

f. Emission Limitations:

Phase II:

NH3 emissions shall not exceed 26.0 lbs/hr without duct burner firing, 30.6 lbs/hr with duct burner firing, and 123.1 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NH3 emission factors (0.0149 lb of NH3/MMBtu without duct burner firing and 0.01454 lb of NH3/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

g. Emission Limitations:

Phase I:

Formaldehyde emissions shall not exceed 0.23 lb/hr and 0.20 ton/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitation shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the permittee-supplied

formaldehyde emission factor (0.00013 lb of formaldehyde/MMBtu). Ongoing compliance with the lb/hr emission limitation may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factor established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the ton/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

Phase II:

Emission Limitations:

Formaldehyde emissions shall not exceed 0.23 lb/hr without duct burner firing, 0.26 lb/hr with duct burner firing, and 1.06 tons/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations shall be demonstrated through emission testing performed in accordance with section A.V.1. Until the initial emission testing is completed, compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied formaldehyde emission factors (0.00013 lb of formaldehyde/MMBtu without duct burner firing and 0.00012 lb of formaldehyde/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

h. Emission Limitations:

Phase I:

Sulfuric acid emissions shall not exceed 0.48 lb/hr and 0.41 ton /yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitation may be demonstrated through the records

required pursuant to section A.III and the permittee-supplied sulfuric acid emission factor (0.000275 lb of sulfuric acid/MMBtu). Compliance with the ton/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitation through emission tests performed in accordance with U.S. EPA-approved methods.

Phase II:

Emission Limitations:

Sulfuric acid emissions shall not exceed 0.48 lb/hr without duct burner firing, 0.56 lb/hr with duct burner firing, and 2.3 tons/yr.

Applicable Compliance Method:

Compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factors (0.000275 lb of sulfuric acid/MMBtu without duct burner firing and 0.000266 lb of sulfuric acid/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

i. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.

Applicable Compliance Method:

If required, compliance with this emission limitation shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A.

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on this emissions unit shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.

2. The terms and conditions for this emissions unit supercede those contained in PTI 06-06206 issued March 29, 2001.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
PHASE I		
P003 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine	None	None
PHASE II		
P003 - GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine with Duct Firing Operated in Combined Cycle Mode and Controlled by Selective Catalytic Reduction (SCR)	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

1. The permit to install for this emissions unit (P003) was evaluated based on actual materials

(typically coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy) was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
TLV (ug/m^3): 368 (Converted from the STEL)
Maximum Hourly Emission Rate (lbs/hr): 0.81*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.60
MAGLC (ug/m3): 8.76

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lbs/hr): 1.68*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.74
MAGLC (ug/m3): 23.8

Pollutant: Ammonia
TLV (ug/m3): 17413
Maximum Hourly Emission Rate (lbs/hr): 92*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 94.7
MAGLC (ug/m3): 415

* This was modeled for emissions units P001, P002 and P003 combined.

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

a. changes in the composition of the materials used, or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the

above table;

b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and

c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01(VV)(1)(a)(ii), and a modification of the existing permit to install will not be required. If the change(s) is (are) defined as a modification under other provisions of the modification definition (other than (VV)(1)(a)(ii)), then the permittee shall obtain a final permit to install prior to the change.
The permittee shall collect, record and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);

b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and

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

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
PHASE II		
P004 - Cooling Tower	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include compliance with the requirements of OAC rule 3745-31- (10) thru (20) and OAC rule 3745-17-07(A).
	OAC rules 3745-31- (10) thru (20)	Particulate emissions (PE) shall not exceed 1.59 lbs/hr and 7.0 tons per year.
	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except as provided by rule.
	OAC rule 3745-17-11(B)(4)	See A.I.2.a below.

2. Additional Terms and Conditions

2.a. The emissions limit based on this applicable rule is less stringent than the limit established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. The permittee shall maintain an average total dissolved solids (TDS) content of 3,000 ppm or less in the circulating cooling water.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform the following monitoring requirements on a monthly basis:

a. test and record the total dissolved solids content of the circulating cooling water, in ppm; and

b. determine the average total dissolved solids content based on a rolling, 12-month average.

IV. Reporting Requirements

1. The permittee shall submit deviation reports in accordance with the general terms and conditions of this permit that identify any exceedances of the average total dissolved solids content requirement.

2. The permittee shall also submit annual reports that specify the total PE emissions from this emissions unit for the previous calendar year. The annual reports shall be submitted by February 15 of each year.

V. Testing Requirements

1. Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitation

PE emissions shall not exceed 1.59 lbs/hr and 7.0 tons per year.

Applicable Compliance Method
Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the drift loss factor supplied by the permittee (0.0416 lb/thousand gallons water flow based on 0.0005 percent drift) by the circulating water flow rate (in thousands of gallons per hour) and by the average total dissolved solids content (ppm) of the cooling water and dividing by 1,000,000 (ppm). Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by 8760 hours and dividing by 2000 lbs/ton.

If required, the permittee shall submit a testing proposal which will demonstrate that the maximum drift loss does not exceed 0.0005 percent.

b. Emission Limitation

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

Applicable Compliance Method:

If required, compliance shall be demonstrated by the method specified in OAC rule 3745-17-03(B)(1).

VI. Miscellaneous Requirements

None

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
P004 - Cooling Tower	None	None

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None