State of Ohio Environmental Protection Agency

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

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

Application No: 03-13549

DATE: 8/9/2001

Fremont Energy Center, LLC
Mark Chrisos
The Pilot House, 2nd Floor, Lewis Wharf
Boston, MA 02110

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
Field Operations and Permit Section
Division of Air Pollution Control

cc: **USEPA** **NWDO**
Alan Lloyd **NSR group - OEPA/Central Office**

FINAL PERMIT TO INSTALL 03-13549

Application Number:	03-13549
APS Premise Number:	0372030241
Permit Fee:	**$1000**
Name of Facility:	Fremont Energy Center, LLC
Person to Contact:	Mark Chrisos
Address:	The Pilot House, 2nd Floor, Lewis Wharf Boston, MA 02110

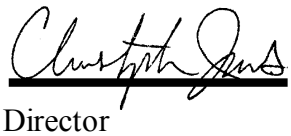
Location of proposed air contaminant source(s) [emissions unit(s)]:
County Road 138
Fremont, Ohio

Description of proposed emissions unit(s):
Installation of two combined cycle turbines & duct burners.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency



Director

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:

i. The date, place (as defined in the permit), and time of sampling or measurements.

ii. The date(s) analyses were performed.

iii. The company or entity that performed the analyses.

iv. The analytical techniques or methods used.

v. The results of such analyses.

vi. The operating conditions existing at the time of sampling or measurement.

b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:

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

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

calendar quarters. See B.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.

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

1. Compliance Requirements

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

2. Reporting Requirements Related to Monitoring and Recordkeeping Requirements

The permittee shall submit required reports in the following manner:

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

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

3. Permit Transfers

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

4. Air Pollution Nuisance

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

5. Termination of Permit To Install

This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete

within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

6. Construction of New Sources(s)

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

7. Public Disclosure

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

8. Applicability

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

emissions unit(s).

9. 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.

10. 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	410.1
CO	1249.7
SO2	133.7
PE	214.4
VOC	213.9
Ammonia	195.6
Formaldehyde	14.4
Sulfuric Acid	30.2

Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

1. The permit to install for these emissions units (P001 and P002) was evaluated based on the actual materials and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model. The predicted 1-hour maximum ground-level concentration from the use of the SCREEN 3.0 model was compared to the MAGLC. The following summarizes the results of the modeling for the "worst case" pollutants:

   Pollutant: Formaldehyde
   TLV (ug/m3): 272.69
   Maximum Hourly Emission Rate (lbs/hr): 3.5*
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.16
   MAGLC (ug/m3): 6.49

   Pollutant: Sulfuric Acid
   TLV (ug/m3): 1000
   Maximum Hourly Emission Rate (lbs/hr):7.4 *
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.58
   MAGLC (ug/m3): 23.8

   Pollutant: Ammonia
   TLV (ug/m3): 17,500
   Maximum Hourly Emission Rate (lbs/hr):48.0 *
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 16.6
   MAGLC (ug/m3): 416.7

   Pollutant: Toluene
   TLV (ug/m3): 188,500
   Maximum Hourly Emission Rate (lbs/hr): 0.7*
   Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.242
   MAGLC (ug/m3): 4488

   Pollutant: Xylene
   TLV (ug/m3): 434,000
   Maximum Hourly Emission Rate (lbs/hr): 0.4*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 0.119
MAGLC (ug/m3): 10333

* This was modeled for emissions units P001 & P002 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 still satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

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

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

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

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:"

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

e. documentation of its evaluation and determination that the changed emissions unit still

satisfies the "Air Toxic Policy"; and

f. 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.

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
B001 - 80 MMBtu/hr natural gas fired auxiliary boiler	OAC rule 3745-31-05(A)(3)
	OAC rule 3745-17-10(B)
	OAC rule 3745-17-07(A)(1)
	OAC rule 3745-18-06(D)
	40 CFR Part 60, Subpart Dc

40 CFR Part 52.21
OAC rules 3745-31-10 through 20

Applicable Emissions Limitations/Control Measures	
See A.I.2.b.	See A.I.2.c.
0.0051 lb particulate emissions (PE)/ MMBtu,0.41 lb PE/hr & 1.8 tons PE/yr	See A.I.2.c.
7.84 lbs carbon monoxide (CO)/hr & 34.3 tons CO/yr	record keeping requirements, See A.III.3.
0.006 lb sulfur dioxide (SO2)/MMBtu, 0.48 SO2/hr & 2.1 tons SO2/yr	
2.72 lbs nitrogen oxides (NOx)/hr & 11.9 tons NOx/year	
0.44 lb volatile organic compounds (VOC)/ hr & 1.9 tons VOC/yr	
visible PE shall not exceed 10 percent opacity, as a six-minute average	
See A.I.2.a. 1.8 tons PE/yr 34.3 tons CO/yr 2.1 tons SO2 11.9 tons NOx/year 1.9 tons VOC/yr	
See A.I.2.c.	

2. Additional Terms and Conditions

2.a Based on the "Prevention of Significant Deterioration" (PSD) analysis conducted to ensure the application of "Best Available Control Technology" (BACT), it has been determined that the use of natural gas and the use of low NOx burners constitute BACT for this emissions unit. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-05(A)(3) above.

2.b The requirements of this rule also include compliance with the requirements of OAC rules 3745-31-10 through 20, 40 CFR Part 52.21, and 40 CFR Part 60, Subpart Dc.

2.c The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

II. Operational Restrictions

1. The permittee shall burn only natural gas in this emissions unit.

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 maintain documentation on the sulfur content of the fuel used in this emissions unit.

3. On a monthly basis, the permittee shall collect and record the quantity of natural gas combusted, in million cubic feet.

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. Pursuant to 40 CFR Part 60.7, permittee is hereby advised of the requirement to report the following at the appropriate times for this emissions unit:

   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).

This notification shall also include, in accordance with section 60.48c (a)(1), the design heat input capacity and identification of fuels to be combusted in this emissions unit.

Reports are to be sent to:

Ohio Environmental Protection Agency
DAPC-Permit Management Unit
Lazarus Government Center
P.O. Box 1049
Columbus, OH 43216-1049

and

Ohio EPA, Northwest District Office
347 North Dunbridge Road
Bowling Green, OH 43402

V. Testing Requirements

1. Compliance Methods Requirements: Compliance with the emission limitation(s) in section A.I of the terms and conditions of this permit shall be determined in accordance with the following method(s):

a. Emission Limitation:
0.0051 lb PE/MMBtu, 0.41 lb PE/hr, 1.8 tons PE/yr

Applicable Compliance Method:
The lb/MMBtu emission limitation is based on the manufacturer's emission factor for this emissions unit. Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the lb/MMBtu limitation by the maximum heat input rate of 80.0 MMBtu/hr. If required, the permittee shall demonstrate compliance with this emission limitation through Method 5 of 40 CFR Part 60, Appendix A Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly limit by 8760 hrs/yr and dividing by 2000 lbs/ton.

b. Emission Limitation:
7.84 lbs CO/hr, 34.3 tons CO/yr

Applicable Compliance Method:
Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the manufacturer's emission factor (0.098 lb CO/MMBtu) by the maximum heat input rate of

80.0 MMBtu/hr. If required, the permittee shall demonstrate compliance with this emission limitation through Method 10 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly limit by 8760 hrs/yr and dividing by 2000 lbs/ton.

c. Emission Limitation:
0.006 lb SO2/MMBtu, 0.048 lb SO2/hr, 2.1 tons SO2/yr

Applicable Compliance Method:
Compliance with the lb/MMbtu emission limitation shall be demonstrated by multiplying the AP-42 emission factor (0.6 lb SO2/million cf of natural gas, Section 1.4, 7/98), by the heat content of the natural gas (1 million cf/1000 MMBtu). Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the lb/MMBtu emission limitation by the maximum heat input rate 80.0 MMBtu/hr. If required, the permittee shall demonstrate compliance with this emission limitation through Method 6 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly limit by 8760 hrs/yr and dividing by 2000 lbs/ton.

d. Emission Limitation:
2.72 lbs NOx/hr,11.9 tons NOx/yr

Applicable Compliance Method:
Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the vendor's emission factor (0.034 lb NOx/MMBtu) by the maximum heat input rate of 80.0 MMBtu/hr. If required, the permittee shall demonstrate compliance with this emission limitation through Method 7 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly limit by 8760 hrs/yr and dividing by 2000 lbs/ton.

e. Emission Limitation:
0.44 lb VOC/hr, 1.9 tons VOC/yr

Applicable Compliance Method:
Compliance with the lb/hr emission limitation shall be demonstrated by multiplying the AP-42 emission factor (5.5 lbs VOC/million cf of natural gas, Section 1.4, 7/98) by the heat content (1 million cf/1000MMBtu), by the maximum heat input rate of 80.0 MMBtu/hr. If required, the permittee shall demonstrate compliance with this emission limitation through Method 25 of 40 CFR Part 60, Appendix A. Compliance with the annual emission limitation shall be demonstrated by

multiplying the hourly limit by 8760 hrs/yr and dividing by 2000 lbs/ton.

f. Emission Limitation:
visible PE shall not exceed 10 percent opacity, as a six-minute average

Applicable Compliance Method:
Compliance with the visible emissions limitation shall be determined by Method 9 of 40 CFR Part 60 Appendix A.

VI. Miscellaneous Requirements

1. This emissions unit, as described in this Permit to Install (PTI), is subject to the applicable provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR Part 60. The requirements of 40 CFR Part 60 are delegated to the Ohio EPA and are federally enforceable.

2. This emissions unit, as described in this PTI, is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the U.S. EPA. The authority to apply and enforce the PSD regulations has been delegated to Ohio EPA.

   In accordance with 40 CFR 124.15, 124.19, and 124.20, the following shall apply:

   a. The effective date of the permit shall be 30 days after the service of notice to any public commentors the final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and

   b. If an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

      Appeals will be addressed to:

      United State Environmental Protection Agency
      Environmental Appeals Board
      401 M Street, SW (MC-113do)
      Washington, DC 21460

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 - 80 MMBtu/hr natural gas fired auxiliary 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 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	
P001 - Westinghouse 501FD (180 MW nominal) combined cycle turbine & duct burner (using SCR and oxidation catalyst)	OAC Rule 3745-31-05 (A)(3)	
		40 CFR 52.21 OAC rules 3745-31-10 through 3745-31-20

	Applicable Emissions Limitations/Control Measures	
OAC Rule 3745-17-07(A)(1)		23.7 lbs ammonia/hr (24.0 lbs ammonia/hr) and 97.8 tons ammonia/yr
	See A.I.2.b.	Start-up and shut-down emissions 67.3 tons NOx/yr 296.7 tons CO/yr 32.0 tons VOC/yr
40 CFR Part 60, Subpart GG		
	Visible Particulate Emissions shall not exceed 10 percent opacity as a six-minute average.	See A.I.2.a.
40 CFR Part 60, Subpart Da		
OAC rule 3745-18-06(F)		
	Allowable Emissions Rates without duct burners firing (and with duct burners firing)	199.1 tons NO_x, 607.7 tons CO, 106.0 tons VOC, 103.0 tons PE, 65.8 tons SO_2, and
OAC Rule 3745-17-11(B)(4)		
	3.5 ppmvd nitrogen oxides (NO_x) at 15% Oxygen, 27.6 lbs NO_x/hr (35.9 lbs NO_x/hr) and 199.1 tons NO_x/yr**	15.1 tons H_2SO_4 per rolling 12-month period**
OAC Rule 3745-103		
	5.0 ppmvd carbon monoxide (CO) at 15% Oxygen (25.0 ppmvd CO at 15% Oxygen)*, 23.0 lbs CO/hr (139.5 lbs CO/hr)* and 607.7 tons CO/yr**	See A.I.2.c.
40 CFR Part 75		See A.I.2.c.
		See A.I.2.c.
	3.9 lbs volatile organic compounds (VOC)/hr (30.0 lbs VOC/hr) and 106.0 tons VOC/yr**	See A.I.2.c.
		See A.I.2.c.
	0.0066 particulate emissions (PE)/MM Btu heat input (0.0091 lb PE/MMBtu heat input), 13.7 lbs PE/hr (24.7 lbs PE/hr) and103.0 tons PE/yr	See A.I.2.d.
		See A.I.2.d
	0.0057 lbs sulfur dioxide (SO_2)/MM Btu heat input, 11.9 lbs SO_2/hr (16.1 lbs SO_2/hr) and 65.8 tons SO_2/yr	
	2.7 lbs sulfuric acid (H_2SO_4)/hr (3.7 lbs H_2SO_4/hr) and 15.1 tons H_2SO_4/year	
	1.23 lbs formaldehyde/hr (1.75 lbs formaldehyde/hr) and 7.2 tons formaldehyde/yr	

2. Additional Terms and Conditions

2.a Per the requirements of 40 CFR 52.21, the permittee is required to perform a Best Available Control Technology (BACT) review for NO_x, SO_2, CO, PE/PM_{10}, H_2SO_4, and VOC. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-05(A)(3) above. The following determinations have been made for each pollutant:

PE- Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PE emissions are PM_{10}.

NO_x- Use of DLN burners and employment of SCR with a controlled rate of 3.5 ppmvd at 15% Oxygen.

CO- Use of an oxidation catalyst with a controlled rate of 5 ppmvd at 15% Oxygen at greater than 75% load.

VOC- Use of efficient combustion technology in the operation of the turbine with an indirect benefit from the oxidation catalyst.

SO_2- Burning natural gas in an efficient combustion turbine.

H_2SO_4- Burning natural gas in an efficient combustion turbine.

2.b The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR 52.21, and OAC 3745-31-13 to 20.

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

2.d If the permittee is subject to the requirements of 40 CFR Part 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.

* In addition to periods of duct firing, this emission limitation includes the operational periods of 60%-75% load and use of power augmentation.

** The annual emission limits above include 1080 hours of start-up and shut-down emissions. It has been determined that there are additional NOx, CO, and VOC emissions associated with start-up and shut-down periods with estimated worst case emissions rates as described in condition A.III.2.

II. Operational Restrictions

1. As specified in the permittee's PTI application, the maximum heat input rating of this emissions unit is 2812 MM Btu/hr. This value corresponds to a maximum natural gas fuel flow of 2.812 million scf/hr, with a lower heat value of 1000 MMBtu/million scf. The permittee shall operate this emissions unit within the parameters specified above, except for start-up* and shut-down. Start-up and shut-down periods shall be defined as any time the unit is operating at less than 60 % load, but under no circumstances shall start-up periods exceed 4.0 hours in duration or shut-down periods exceed 1.0 hours in duration.

   *Startup for testing purposes shall be defined as the date when emission unit P001 is set in operation for any purpose. Start-up for the daily operation of the turbine is described in condition A.II.1.

2. 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 100scf.

3. The permittee shall be limited to 1080 hours of operation per year for start-ups and shut-downs for this emissions unit.

4. During the first 12 month of operation following startup, the permittee shall be limited to the following emission limits for NOx and CO (including start-up and shut-down emissions):

Month(s)	Emission Limitations	
	NOx	CO
1	35.0	100.0
1-2	70.0	200.0
1-3	105.0	300.0
1-4	140.0	400.0
1-5	175.0	500.0
1-12	199.1	607.7

III. Monitoring and/or Recordkeeping Requirements

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

   a. number and duration of each cold and hot start-up,
   b. number and duration of each shut-down,

   c. the start-up and shut-down emissions* for NOx, CO, .and VOC in tons per month,

2. The permittee shall maintain monthly records of the following information for this emissions unit:

   a. the natural gas usage rate for each month (in standard cubic feet);
   b. the hours of operation for the turbine;
   c. the hours of operation for the duct burner;
   d. the monthly emission rate* for PE, NOx, SO2, CO, VOC, formaldehyde, ammonia, and H_2SO_4, in tons;
   e. the annual, year to date emissions of formaldehyde, and ammonia, , in tons;
   f. during the first 12 calendar months of operation following startup, the cumulative emission rate for NOx, and CO (including start-up and shut-down emissions), in tons; and
   g. beginning the first 12 calendar months of operation following startup, the rolling, 12-month summation of the emission rate for PE, NOx, SO2, CO, VOC, and H_2SO_4 (including start-up and shut-down emissions), in tons.

   * The permittee shall use continuous emissions monitoring (CEM) data to determine emissions for those pollutants where a CEM is installed. During the periods where a CEM is not operational or for pollutants where a CEM is not installed, the permittee shall use the most recent testing data/emission factors available for each respective pollutant, including the following emission factors for cold (and hot) start-ups: 123 (129) lbs NOx/hr, 451 (472) lbs CO/hr, and 41.4 (43.1) lbs VOC/hr; for shutdowns: 78 lbs NOx/hr, 560 lbs CO/hr, and 78 lbs VOC/hr.

3. 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.

4. The permittee shall operate and maintain equipment to continuously monitor* and record NO_x and CO from this emissions unit in the units established in this permit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA, Central Office.

   The permittee shall maintain records of all data obtained by the continuous NO_x and CO monitoring systems including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x and CO in the units established in this permit (with a three hour block averaging period), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall operate and maintain equipment to continuously monitor and record the O_2 from this emissions unit in percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA, Central Office. The permittee may install a CO_2 monitor in lieu of an O_2 monitor with prior approval from the Ohio EPA, Central Office.
   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, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

***** The installation and operation of systems to continuously monitor and record emissions of NO_x may be performed in lieu of monitoring the nitrogen content of the fuels being fired in the turbine, as required by 40 CFR 60.334(b).

6. The information management system for this emissions unit shall be capable of monitoring and recording the fuel flow (million cu ft), and hours of operation with duct burner firing and without duct burner firing.

7. The permittee shall maintain documentation on the sulfur contents and heating values of the fuels received. ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The permittee shall determine the heat value of the fuels using ASTM method D240. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Ohio EPA. The newest or most recent revisions to the applicable test method shall be used for these analyses.

   Alternative, equivalent methods and frequencies of sampling schedules may be used if they comply with the requirements specified in 40 CFR Part 60.13, and upon written approval by the Ohio EPA.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas with a sulfur content of no more than 2 grains per 100 scf was burned in this emissions unit. These reports are due by the date described in Part I - General Terms and Conditions of this permit.

2. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x or CO values in excess of the limits specified in the terms and conditions of this permit.

   The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northwest District Office documenting any continuous NO_x, CO, or 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 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. 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.

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

Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northwest District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

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

4. Unless otherwise specified, the above reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(1).

5. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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.

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

7. The permittee shall submit deviation (excursion) reports that identify each time when this emissions unit was not in compliance with the start-up/shut-down restrictions specified under under section II. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit.

8. 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
   Northwest District Office
   Division of Air Pollution Control
   347 North Dunbridge Road
   Bowling Green, Ohio 43402

V. Testing Requirements

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

   a. The emission testing* shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

   b. The emission testing* shall be conducted to demonstrate compliance with the NO_x and CO, outlet concentrations, the lbs/MMBtu limitations for SO_2, PE, and the mass emissions limitations for NO_x, CO, VOC, SO_2, PE, ammonia**,** and formaldehyde. Testing shall be conducted when firing the turbine only (without power augmentation) and when firing the turbine (with power augmentation) and the duct burner simultaneously.

   c. The following test method(s) shall be employed to demonstrate compliance with the above

emissions limitations:

NOX	Method 20 of 40 CFR Part 60, Appendix A
PE	Method 5 of 40 CFR Part 60, Appendix A
Formaldehyde	SW-846 Method 0011 or EPA Method 316
VOC	Method 25 of 40 CFR Part 60, Appendix A
SO_2	Method 6 of 40 CFR Part 60, Appendix A**
CO	Method 10 of 40 CFR Part 60, Appendix A
Ammonia	CTM-027

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

d. The stack on this emissions unit shall be constructed such that the height and port locations meet the minimum requirements necessary to perform Methods 1-4 of 40 CFR Part 60, Appendix A.

e. The testing shall be performed at peak load (as defined by 40 CFR Part 60, Subpart GG), unless otherwise specified or approved by the Ohio EPA, NWDO.

f. Not later than 45 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA, NWDO refusal to accept the results of the emission tests.

g. Personnel from the Ohio EPA, NWDO shall be permitted to witness the tests, 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.

h. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

* In lieu of the test methods and procedures required under 40 CFR Part 60.335, the

permittee shall follow the testing requirements in accordance with this permit.

** In lieu of the initial SO2 emissions testing required above, the permittee may sample the Sulfur content of the fuel as provided for in 40 CFR Subpart GG.

2. 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 startup of such emissions unit, the permittee shall conduct certification tests of the continuous NO_x and CO monitoring systems pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6*. Personnel from the Ohio EPA, Northwest District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, copies of all the test results shall be submitted within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, Northwest District Office and the Ohio EPA, Central Office. Certification of the continuous NO_x and CO monitoring systems 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 6*.

3. 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 startup of such emissions unit, the permittee shall conduct certification tests of the continuous O_2 monitoring systems pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3. Personnel from the Ohio EPA, Northwest District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, Northwest District Office 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 ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3.

* The permittee may use 40 CFR Part 60, Appendix B, Performance Specification 2 and Performance Specification 4 in conjunction with a fuel flow monitor as described in 40 CFR Part 75 to meet these requirements if approved by the Ohio EPA, Central Office.

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

a. Emission Limitation
3.5 ppmvd at 15% Oxygen, 27.6 lbs NOx/hr, 35.9 lbs NOx/hr, 199.1 tons NO_x per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable outlet concentration and the lbs/hr emission limitations

shall be demonstrated by the performance testing as described in condition A.V.1 and CEM requirement as described in conditions A.III.5. and A.V.2. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

b. Emission Limitation
0.0066 lb PE/MMBtu heat input, 0.0091 lb PE/MMBtu heat input, 13.7 lbs PE/hr, 24.7 lbs PE/hr,103.0 tons PE per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable lb/MMBtu heat input emission limitation and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III..2.

c. Emission Limitation
0.0057 lb SO_2/MMBtu heat input, 11.9 lbs SO_2/hr, 16.1 lbs SO_2/hr, 65.8 tons SO_2 per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable lb/MMBtu heat input emission limitation and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III..2.

d. Emission Limitation
3.9 lbs VOC/hr, 30.0 lbs VOC/hr,1060 tons VOC per rolling 12-month period

Applicable Compliance Method
Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III..2.

e. Emission Limitation
5.0 ppmvd CO at 15% Oxygen, 25.0 ppmvd CO at 15% Oxygen, 23.0 lbs CO/hr, 139.5 lbs CO/hr, 607.7 tons CO per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable outlet concentrations and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and CEM requirement as described in conditions A.III. and A.V.2. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III.2.

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

Applicable Compliance Method
Compliance with the visible emissions limitations established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

g. Emission Limitation
2.7 lbs H_2SO_4/hr, 3.7 lbs H_2SO_4/hr, 15.1 tons H_2SO_4 per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable lbs/hr emission limitations shall be demonstrated by the manufacturer's guaranteed emission rate in conjunction with the sulfur content of the fuel being fired. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

h. Emission Limitation
1.23 lbs formaldehyde/hr, 1.75 lbs formaldehyde/hr, 7.2 tons formaldehyde/yr

Applicable Compliance Method
Compliance with the allowable lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

i. Emission Limitation
23.7 lbs ammonia/hr, 24.0 lbs ammonia/hr, 97.8 tons ammonia/yr

Applicable Compliance Method
Compliance with the allowable lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitationshall be determined by the record keeping required in condition A.III.2.

j. Emission Limitation
Start-up and shut-down emissions
67.3 tons NOx/yr
296.7 tons CO/yr
32.0 tons VOC/yr
Applicable Compliance Method
Compliance with the annual emission limitations shall be demonstrated by the record keeping required in condition A.III.1.

VI. Miscellaneous Requirements

1. Prior to the installation of the continuous NO_x and CO monitoring systems, 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 6 (or as described in condition A.V.1.) for approval by the Ohio EPA, Central Office.

   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.

2. 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, CO, and O_2 monitoring systems designed to ensure continuous valid and representative readings of NO_x, CO, and O_2 emissions in the units established in this permit. The plan shall follow the requirements of 40 CFR Part 60 Appendix F or as approved by the Ohio EPA, Central office. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x, CO, and O_2 monitoring systems must be kept on site and available for inspection during regular office hours.

3. This emissions unit, as described in this Permit to Install (PTI), is subject to the applicable provisions of the NSPS, as promulgated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR Part 60. The requirements of 40 CFR Part 60 are delegated to the Ohio EPA and are federally enforceable.

4. This emissions unit as described in this PTI is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the U. S. EPA. The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

   In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply:

   a. The effective date of the permit shall be 30 days after the service of notice to any public commentors. The final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and

   b. if an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

   Appeals will be addressed to:

   United States Environmental Protection Agency
   Environmental Appeals Board

401 M Street, SW (MC-113do)
Washington, D.C. 21460

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
P001- Westinghouse 501FD (180 MW nominal) combined cycle turbine & duct burner	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 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	
P002 - Westinghouse 501FD (180 MW nominal) combined cycle turbine & duct burner (using SCR and oxidation catalyst)	OAC Rule 3745-31-05 (A)(3)	
		40 CFR 52.21 OAC rules 3745-31-10 through

3745-31-20	Applicable Emissions Limitations/Control Measures	formaldehyde/yr
	See A.I.2.b.	23.7 lbs ammonia/hr (24.0 lbs ammonia/hr) and 97.8 tons ammonia/yr
OAC Rule 3745-17-07(A)(1)	Visible Particulate Emissions shall not exceed 10 percent opacity as a six-minute average.	67.3 tons NO/yr 296.7 tons CO/yr 32.0 tons VOC/yr See A.I.2.a.
40 CFR Part 60, Subpart GG		
40 CFR Part 60, Subpart Da	Allowable Emissions Rates without duct burners firing (and with duct burners firing)	
OAC rule 3745-18-06(F)	3.5 ppmvd nitrogen oxides (NO_x) at 15% Oxygen,	199.1 tons NO_x, 607.7 tons CO, 106.0 tons VOC, 103.0 tons PE, 65.8 tons SO_2, and
OAC Rule 3745-17-11(B)(4)	27.6 lbs NO_x/hr (35.9 lbs NO_x/hr)* and	15.1 tons H_2SO_4 per rolling 12-month period**
OAC Rule 3745-103	199.1 tons NO_x/yr**	See A.I.2.c.
40 CFR Part 75	5.0 ppmvd carbon monoxide (CO) at 15% Oxygen (25.0 ppmvd CO at 15% Oxygen)*, 23.0 lbs CO/hr (139.5 lbs CO/hr)* and 607.7 tons CO/yr**	See A.I.2.c. See A.I.2.c.
	3.9 lbs volatile organic compounds (VOC)/hr (30.0 lbs VOC/hr) and 106.0 tons VOC/yr**	See A.I.2.c. See A.I.2.c. See A.I.2.d.
	0.0066 particulate emissions (PE)/MM Btu heat input (0.0091 lb PE/MMBtu heat input), 13.7 lbs PE/hr (24.7 lbs PE/hr) and103.0 tons PE/yr	See A.I.2.d
	0.0057 lbs sulfur dioxide (SO_2)/MM Btu heat input, 11.9 lbs SO_2/hr (16.1 lbs SO_2/hr) and 65.8 tons SO_2/yr	
	2.7 lbs sulfuric acid (H_2SO_4)/hr (3.7 lbs H_2SO_4/hr) and 15.1 tons H_2SO_4/year	
	1.23 lbs formaldehyde/hr (1.75 lbs formaldehyde/hr) and 7.2 tons	

2. Additional Terms and Conditions

2.a Per the requirements of 40 CFR 52.21, the permittee is required to perform a Best Available Control Technology (BACT) review for NO_x, SO_2, CO, PE/PM_{10}, H_2SO_4, and VOC. The emissions limits based on the BACT requirements are listed under OAC rule 3745-31-05(A)(3) above. The following determinations have been made for each pollutant:

PE- Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PE emissions are PM_{10}.

NO_x- Use of DLN burners and employment of SCR with a controlled rate of 3.5 ppmvd at 15% Oxygen.

CO- Use of an oxidation catalyst with a controlled rate of 5 ppmvd at 15% Oxygen at greater than 75% load.

VOC- Use of efficient combustion technology in the operation of the turbine with an indirect benefit from the oxidation catalyst.

SO_2- Burning natural gas in an efficient combustion turbine.

H_2SO_4- Burning natural gas in an efficient combustion turbine.

2.b The requirements of this rule also include compliance with the requirements of 40 CFR 60 Subpart GG, 40 CFR 52.21, and OAC 3745-31-13 to 20.

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

2.d If the permittee is subject to the requirements of 40 CFR Part 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.

* In addition to periods of duct firing, this emission limitation includes the operational periods of 60%-75% load and use of power augmentation.

** The annual emission limits above include 1080 hours of start-up and shut-down emissions. It has been determined that there are additional NOx, CO, and VOC emissions associated with start-up and shut-down periods . as described in condition A.III.2.

II. Operational Restrictions

1. As specified in the permittee's PTI application, the maximum heat input rating of this emissions

unit is 2812 MM Btu/hr. This value corresponds to a maximum natural gas fuel flow of 2.812 million scf/hr, with a lower heat value of 1000 MMBtu/million scf. The permittee shall operate this emissions unit within the parameters specified above, except for start-up* and shut-down. Start-up and shut-down periods shall be defined as any time the unit is operating at less than 60 % load, but under no circumstances shall startup periods exceed 4.0 hours in duration or shut-down periods exceed 1.0 hours in duration.

*Startup for testing purposes shall be defined as the date when emission unit P001 is set in operation for any purpose. Start-up for the daily operation of the turbine is described in condition A.II.1.

2. 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 100scf.

3. The permittee shall be limited to 1080 hours of operation per year for start-ups and shut-downs for this emissions unit.

4. During the first 12 month of operation following startup, the permittee shall be limited to the following emission limits for NOx and CO (including start-up and shut-down emissions):

Month(s)	Emission Limitations	
	NOx	CO
1	35.0	100.0
1-2	70.0	200.0
1-3	105.0	300.0
1-4	140.0	400.0
1-5	175.0	500.0
1-12	199.1	607.7

III. Monitoring and/or Recordkeeping Requirements

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

   a. number and duration of each cold and hot start-up,
   b. number and duration of each shut-down,

   c. the start-up and shut-down emissions* for NOx, CO, .and VOC in tons per month,

2. The permittee shall maintain monthly records of the following information for this emissions unit:

   a. the natural gas usage rate for each month (in standard cubic feet);
   b. the hours of operation for the turbine;

c. the hours of operation for the duct burner;
d. the monthly emission rate* for PE, NOx, SO2, CO, VOC, formaldehyde, ammonia, and H_2SO_4, in tons;
e. the annual, year to date emissions of formaldehyde, and ammonia, , in tons;
f. during the first 12 calendar months of operation following startup, the cumulative emission rate for NOx, and CO (including start-up and shut-down emissions), in tons; and
g. beginning the first 12 calendar months of operation following startup, the rolling, 12-month summation of the emission rate for PE, NOx, SO2, CO, VOC, and H_2SO_4 (including start-up and shut-down emissions), in tons.

* The permittee shall use continuous emissions monitoring (CEM) data to determine emissions for those pollutants where a CEM is installed. During the periods where a CEM is not operational or for pollutants where a CEM is not installed, the permittee shall use the most recent testing data/emission factors available for each respective pollutant, including the following emission factors for cold (and hot) start-ups: 123 (129) lbs NOx/hr, 451 (472) lbs CO/hr, and 41.4 (43.1) lbs VOC/hr; for shutdowns: 78 lbs NOx/hr, 560 lbs CO/hr, and 78 lbs VOC/hr.

3. 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.

4. The permittee shall operate and maintain equipment to continuously monitor* and record NO_x and CO from this emissions unit in the units established in this permit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA, Central Office.

   The permittee shall maintain records of all data obtained by the continuous NO_x and CO monitoring systems including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x and CO in the units established in this permit (with a three hour block averaging period), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

5. The permittee shall operate and maintain equipment to continuously monitor and record the O_2 from this emissions unit in percent O_2. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13 or as approved by the Ohio EPA, Central Office. The permittee may install a CO_2 monitor in lieu of an O_2 monitor with prior approval from the Ohio EPA, Central Office.
   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, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

* The installation and operation of systems to continuously monitor and record emissions of NO_x may be performed in lieu of monitoring the nitrogen content of the fuels being fired in the turbine, as required by 40 CFR 60.334(b).

6. The information management system for this emissions unit shall be capable of monitoring and recording the fuel flow (million cu ft), and hours of operation with duct burner firing, and hours of operation without duct burner firing.

7. The permittee shall maintain documentation on the sulfur contents and heating values of the fuels received. ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The permittee shall determine the heat value of the fuels using ASTM method D240. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Ohio EPA. The newest or most recent revisions to the applicable test method shall be used for these analyses.

   Alternative, equivalent methods and frequencies of sampling schedules may be used if they comply with the requirements specified in 40 CFR Part 60.13, and upon written approval by the Ohio EPA.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas with a sulfur content of no more than 2 grains per 100 scf was burned in this emissions unit. These reports are due by the date described in Part I - General Terms and Conditions of this permit.

2. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Northwest District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x or CO values in excess of the limits specified in the terms and conditions of this permit.

   The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Northwest District Office documenting any continuous NO_x, CO, or 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 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. 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.

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

Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the Ohio EPA, Northwest District Office within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

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

4. Unless otherwise specified, the above reports are due by the date described in Part I - General Terms and Conditions of this permit under section (A)(1).

5. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the 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.

6. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60.7. The summary shall be submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

7. The permittee shall submit deviation (excursion) reports that identify each time when this

emissions unit was not in compliance with the start-up/shut-down restrictions specified under section II. above. These reports are due by the date described in Part I - General Terms and Conditions of this permit.

8. 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
   Northwest District Office
   Division of Air Pollution Control
   347 North Dunbridge Road
   Bowling Green, Ohio 43402

V. Testing Requirements

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

   a. The emission testing* shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

   b. The emission testing* shall be conducted to demonstrate compliance with the NO_x and CO, outlet concentrations, the lbs/MMBtu limitations for SO_2, PE, and the mass emissions limitations for NO_x, CO, VOC, SO_2, PE, ammonia**,** and formaldehyde. Testing shall be

conducted when firing the turbine only (without power augmentation) and when firing the turbine (with power augmentation) and the duct burner simultaneously.

c. The following test method(s) shall be employed to demonstrate compliance with the above emissions limitations:

NOX	Method 20 of 40 CFR Part 60, Appendix A
PE	Method 5 of 40 CFR Part 60, Appendix A
Formaldehyde	SW-846 Method 0011 or EPA Method 316
VOC	Method 25 of 40 CFR Part 60, Appendix A
SO_2	Method 6 of 40 CFR Part 60, Appendix A**
CO	Method 10 of 40 CFR Part 60, Appendix A
Ammonia	CTM-027

Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA, NWDO.

d. The stack on this emissions unit shall be constructed such that the height and port locations meet the minimum requirements necessary to perform Methods 1-4 of 40 CFR Part 60, Appendix A.

e. The testing shall be performed at peak load (as defined by 40 CFR Part 60, Subpart GG), unless otherwise specified or approved by the Ohio EPA, NWDO.

f. Not later than 45 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. 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 tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA, NWDO refusal to accept the results of the emission tests.

g. Personnel from the Ohio EPA, NWDO shall be permitted to witness the tests, 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.

h. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for

the submittal of the written report, where warranted, with prior approval from the Ohio EPA, NWDO.

* In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing requirements in accordance with this permit.

** In lieu of the initial SO2 emissions testing required above, the permittee may sample the Sulfur content of the fuel as provided for in 40 CFR Subpart GG.

2. 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 startup of such emissions unit, the permittee shall conduct certification tests of the continuous NO_x and CO monitoring systems pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6*. Personnel from the Ohio EPA, Northwest District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, copies of all the test results shall be submitted within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, Northwest District Office and the Ohio EPA, Central Office. Certification of the continuous NO_x and CO monitoring systems 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 6*.

3. 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 startup of such emissions unit, the permittee shall conduct certification tests of the continuous O_2 monitoring systems pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3. Personnel from the Ohio EPA, Northwest District Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted within 30 days after the test is completed. Copies of the test results shall be sent to the Ohio EPA, Northwest District Office 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 ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 3.

* The permittee may use 40 CFR Part 60, Appendix B, Performance Specification 2 and Performance Specification 4 in conjunction with a fuel flow monitor as described in 40 CFR Part 75 to meet these requirements if approved by the Ohio EPA, Central Office.

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

a. Emission Limitation
3.5 ppmvd at 15% Oxygen, 27.6 lbs NOx/hr, 35.9 lbs NOx/hr, 199.1 tons NO_x per rolling

12-month period

Applicable Compliance Method
Compliance with the allowable outlet concentration and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and CEM requirement as described in conditions A.III.5. and A.V.2. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

b. Emission Limitation
0.0066 lb PE/MMBtu heat input, 0.0091 lb PE/MMBtu heat input, 13.7 lbs PE/hr, 24.7 lbs PE/hr,103.0 tons PE per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable lb/MMBtu heat input emission limitation and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III..2.

c. Emission Limitation
0.0057 lb SO_2/MMBtu heat input, 11.9 lbs SO_2/hr, 16.1 lbs SO_2/hr, 65.8 tons SO_2 per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable lb/MMBtu heat input emission limitation and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III..2.

d. Emission Limitation
3.9 lbs VOC/hr, 30.0 lbs VOC/hr,1060 tons VOC per rolling 12-month period

Applicable Compliance Method
Compliance with the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III..2.

e. Emission Limitation
5.0 ppmvd CO at 15% Oxygen, 25.0 ppmvd CO at 15% Oxygen, 23.0 lbs CO/hr, 139.5 lbs CO/hr, 607.7 tons CO per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable outlet concentrations and the lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1 and

CEM requirement as described in conditions A.III. and A.V.2. Compliance with the annual emission limitations shall be determined by the record keeping required in condition A.III.2.

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

Applicable Compliance Method
Compliance with the visible emissions limitations established by this permit shall be determined by Method 9, 40 CFR Part 60 Appendix A.

g. Emission Limitation
2.7 lbs H_2SO_4/hr, 3.7 lbs H_2SO_4/hr, 15.1 tons H_2SO_4 per rolling 12-month period

Applicable Compliance Method
Compliance with the allowable lbs/hr emission limitations shall be demonstrated by the manufacturer's guaranteed emission rate in conjunction with the sulfur content of the fuel being fired. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

h. Emission Limitation
1.23 lbs formaldehyde/hr, 1.75 lbs formaldehyde/hr, 7.2 tons formaldehyde/yr

Applicable Compliance Method
Compliance with the allowable lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitation shall be determined by the record keeping required in condition A.III.2.

i. Emission Limitation
23.7 lbs ammonia/hr, 24.0 lbs ammonia/hr, 97.8 tons ammonia/yr

Applicable Compliance Method
Compliance with the allowable lbs/hr emission limitations shall be demonstrated by the performance testing as described in condition A.V.1. Compliance with the annual emission limitationshall be determined by the record keeping required in condition A.III.2.

j. Emission Limitation
Start-up and shut-down emissions
67.3 tons NOx/yr
296.7 tons CO/yr

32.0 tons VOC/yr
Applicable Compliance Method
Compliance with the annual emission limitations shall be demonstrated by the record keeping required in condition A.III.1.

VI. Miscellaneous Requirements

1. Prior to the installation of the continuous NO_x and CO monitoring systems, 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 6 (or as described in condition A.V.1.) for approval by the Ohio EPA, Central Office.

   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.

2. 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, CO, and O_2 monitoring systems designed to ensure continuous valid and representative readings of NO_x, CO, and O_2 emissions in the units established in this permit. The plan shall follow the requirements of 40 CFR Part 60 Appendix F or as approved by the Ohio EPA, Central office. The quality assurance/quality control plan and a logbook dedicated to the continuous NO_x, CO, and O_2 monitoring systems must be kept on site and available for inspection during regular office hours.

3. This emissions unit, as described in this Permit to Install (PTI), is subject to the applicable provisions of the NSPS, as promulgated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR Part 60. The requirements of 40 CFR Part 60 are delegated to the Ohio EPA and are federally enforceable.

4. This emissions unit as described in this PTI is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the U. S. EPA. The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

   In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply:

   a. The effective date of the permit shall be 30 days after the service of notice to any public commentors. The final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and

   b. if an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

Appeals will be addressed to:

United States Environmental Protection Agency
Environmental Appeals Board
401 M Street, SW (MC-113do)
Washington, D.C. 21460

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
P002 - Westinghouse 501FD (180 MW nominal) combined cycle turbine & duct burner	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 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
P003 - cooling tower	40 CFR 52.21 OAC rules 3745-31-10 through 3745-31-20	See A.I.2.a.
	OAC rule 3745-31-05 (A)(3)	See A.I.2.b. 1.5 lbs PE/hr & 6.6 tons PE/yr
	OAC rule 3745-17-11 (B)(4)	See A.I.2.c.
	OAC rule 3745-17-07 (A)(1)	visible particulate emissions shall not exceed 20 percent opacity as a six-minute average, except as provided by rule

2. Additional Terms and Conditions

2.a Per the requirements of 40 CFR 52.21, the permittee is required to perform a Best Available Control Technology (BACT) review for PE/PM_{10}. The implementation of high efficiency drift eliminators constitute BACT for this emissions unit.

2.b The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-10 through 20, OAC rule 3745-17-07 (A)(1), and 40 CFR Part 52.21.

2.c 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 content of 2,500 ppm or less in this emissions unit.

III. Monitoring and/or Recordkeeping Requirements

1. The permittee shall perform the following monitoring requirements for emissions unit P001 on a monthly basis:

   a. test and record the total dissolved solids content;

   b. determine the average 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.

V. Testing Requirements

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

   a. Emission Limitation
   1.5 lbs PE/hr & 6.6 tons PE/yr

   Applicable Compliance Method
   Compliance with the lbs/hr emission limitation shall be demonstrated by applying the maximum drift loss factor 0.0005 percent to the maximum average total dissolved solids content of 2,500 ppm for the cooling water. If required, the permittee shall submit a testing proposal which will demonstrate that the maximum drift loss does not exceed 0.0005 percent. Compliance with the annual emission limitation shall be demonstrated by the multiplying the hourly emission rate by 8760 hours and dividing by 2000 lbs/ton.

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

Applicable Compliance Method
Compliance with the visible emissions limitations established by this permit shall be determined by OAC rule 3745-17-03(B)(10).

VI. Miscellaneous Requirements

1. This emissions unit as described in this Permit to Install (PTI) is subject to the applicable provisions of the Prevention of Significant Deterioration (PSD) regulations as promulgated by the United States Environmental Protection Agency (U. S. EPA.). The authority to apply and enforce the PSD regulations has been delegated to the Ohio EPA.

   In accordance with 40 CFR 124.15, 124.19 and 124.20, the following shall apply:

   a. The effective date of the permit shall be 30 days after the service of notice to any public commentors. The final decision to issue, modify or revoke and re-issue the permit, unless the service of notice is by mail, in which case the effective date of the permit shall be 33 days after the service notice; and

   b. if an appeal is made to the Environmental Appeals Board of the U.S. EPA, the effective date of the permit is suspended until such time as the appeal is resolved or denied.

   Appeals will be addressed to:

   United States Environmental Protection Agency
   Environmental Appeals Board
   401 M Street, SW (MC-113do)
   Washington, D.C. 21460

Emissions Unit ID: P003

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
P003 - cooling tower		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