State of Ohio Environmental Protection Agency

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

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

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

05/09/06

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

07-44-00-0150
Duke Energy - Hanging Rock, LLC
Steve A Townsend
1395 County Rd 1A
Ironton, OH 45638

Dear Steve A Townsend:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

The Ohio EPA is encouraging 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 of the Director is final and may be appealed to the Environmental Review Appeals Commission pursuant to Section 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 with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact Portsmouth Air Pollution Group.

Sincerely,

Michael W. Ahern

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

cc: Portsmouth Air Pollution Group
File, DAPC PIER

State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: **05/09/06**	Effective Date: **05/30/06**	Expiration Date: **05/30/11**

This document constitutes issuance of a Title V permit for Facility ID: 07-44-00-0150 to:
Duke Energy - Hanging Rock, LLC
1395 County Rd 1A
Ironton, OH 45638

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B001 (PB1 Aux Boiler) Power Block 1 Aux Boiler 30.6 MMBTU/hr fired Nat Gas Boiler	P002 (HRSG 1GT2) 1GT2 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability	P005 (PB1 Cooling Tower) Power Block 1 Multi-Cell Wet Mechanical Draft Cooling Tower
B002 (PB2 Aux Boiler) Power Block 2 Aux Boiler 30.6 MMBTU/hr fired Nat Gas Boiler	P003 (HRSG 2GT1) 2GT1 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability	P006 (PB2 Cooling Tower) Power Block 2 Multi-Cell Wet Mechanical Draft Cooling Tower
P001 (HRSG 1GT1) 1GT1 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability	P004 (HRSG 2GT2) 2GT2 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Portsmouth Air Pollution Group
605 Washington Street, Third Floor
Portsmouth, OH 45662
(740) 353-5156

Ohio Environmental Protection Agency

Joseph P. Koncelik
Director

PART I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Section

1. Monitoring and Related Record Keeping and Reporting Requirements

a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.III of Part III of this Title V permit, 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.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 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.
(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction reportable under OAC rule 3745-15-06(B) constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written deviation reports shall satisfy the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. Full compliance with OAC rule 3745-77-07(A)(3)(c) requires reporting of all other deviations of the federally enforceable requirements specified in the permit as required by such rule.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement satisfies the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy (for the deviations so reported) the requirements of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Unless otherwise specified by rule, written reports that identify deviations of the following federally enforceable requirements contained in this permit; General Terms and Conditions: A.2, A.3, A.4, A.6.e, A.7, A.12, A.14, A.18, A.19, A.20, and A.22 of Part I of this Title V permit, as well as any deviations from the requirements in Section A.V or A.VI of Part III of this Title V permit**,** and any monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months. Unless otherwise specified by rule, all other deviations from federally enforceable requirements identified in this permit shall be submitted annually as part of the annual compliance certification, including deviations of federally enforceable requirements not specifically addressed by permit or rule for the insignificant activities or emissions levels (IEU) identified in Part II.A of this Title V

permit. Annual reporting of deviations is deemed adequate to meet the deviation reporting requirements for IEUs unless otherwise specified by permit or rule.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual and annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.
(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii) and OAC rule 3745-77-07(A)(13)(b))

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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."
(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. Scheduled Maintenance

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.
(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. Risk Management Plans

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or

b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

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.
(Authority for term: OAC rule 3745-77-07(A)(5))

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.
(Authority for term: OAC rule 3745-77-07(A)(6))

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, in accordance with A.10 below. 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.

f. Except as otherwise indicated below, this Title V permit, or permit modification, is effective for five years from the original effective date specified in the permit. In the event that this facility becomes eligible for non-title V permits, this permit shall cease to be enforceable upon final issuance of all applicable OAC Chapter 3745-35 operating permits and/or registrations for all subject emissions units located at the facility and:

i. the permittee submits an approved facility-wide potential to emit analysis supporting a claim that the facility no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on the permanent shutdown and removal of one or more emissions units identified in this permit; or

ii. the permittee no longer meets the definition of a “major source” as defined in OAC rule 3745-77-01(W) based on obtaining restrictions on the facility-wide potential(s) to emit that are federally enforceable or legally and practically enforceable ; or

iii. a combination of i. and ii. above.

The permittee shall comply with any residual requirements, such as quarterly deviation reports, semi-annual deviation reports, and annual compliance certifications covering the period during which this Title V permit was enforceable. All records relating to this permit must be maintained in accordance with law.
(Authority for term: OAC rule 3745-77-01(W), OAC rule 3745-77-07(A)(3)(b)(ii), OAC rule 3745-77(A)(7))

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.
(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.
(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.
(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.

b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.

c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.

d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.

(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

11. 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.
(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.

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.

d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:

i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted (i.e., postmarked) on or before April 30th of each year during the permit term.

ii. Compliance certifications shall include the following:

(a) An identification of each term or condition of this permit that is the basis of the certification.

(b) The permittee's current compliance status.

(c) Whether compliance was continuous or intermittent.

(d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.

(e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.

iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.

b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.

b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA, except that no such notice shall be required for changes that qualify as insignificant emissions levels or activities as defined in OAC rule 3745-77-01(U). Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.

c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).

d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.
(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.
(This term is provided for informational purposes only.)

18. Insignificant Activities or Emissions Levels

Each IEU that has one or more applicable requirements shall comply with those applicable requirements.
(Authority for term: OAC rule 3745-77-07(A)(1))

19. Permit to Install Requirement

Prior to the “installation” or “modification” of any “air contaminant source,” as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-07(A)(1))

20. 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.
(Authority for term: OAC rule 3745-77-07(A)(1))

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification from the responsible official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

After the date on which an emissions unit is permanently shut down (i.e., that has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31 and therefore ceases to meet the definition of an "emissions unit" as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any Title V permit requirements applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

No emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit to install pursuant to OAC Chapter 3745-31.
(Authority for term: OAC rule 3745-77-01)

22. Title VI Provisions

If applicable, the permittee shall comply with the standards for recycling and reducing emissions of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices specified in 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment specified in 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

(Authority for term: OAC rule 3745-77-01(H)(11))

B. ***State Only Enforceable Section***

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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 (i.e., postmarked) quarterly, 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.)

2. Records Retention Requirements

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.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

5. 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.

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

If no emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii; or

b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; or

c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. The following insignificant emissions units are located at this facility:

Z003 - Power Block 1 500 KW emergency diesel generator;
Z004 - Fuel tank for PB1 EDG;
Z005 - Power Block 2 500 KW emergency diesel generator;
Z006 - Fuel tank for PB2 EDG;
Z007 - Plant 265 HP emergency diesel fire pump;
Z008 - Fuel tank for EDFP;
Z011 - PB1 ammonia storage tank; and
Z012 - PB2 ammonia storage tank.

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

2. Nitrogen Oxides (NOx) Budget Trading Program
OAC chapter 3745-14

2.a Office of Regulatory Information System Facility Code - 6031

2.b The following regulated electrical generating units are subject to the applicable requirements specified in OAC chapter 3745-14.

P001 combustion turbine #1 (CT #1)
P002 combustion turbine #2 (CT #2)
P003 combustion turbine #3 (CT #3)
P004 combustion turbine #4 (CT #4)

NOx allowances for these units for the control periods in years 2004 through 2007 shall be allocated from the new source set-aside in accordance with the provisions of OAC rule 3745-14-05(C)(4)(d). NOx allowances for these units for the control periods beginning in year 2008 shall be allocated from the state trading program budget in accordance with the provisions of OAC rule 3745-14-05(C)(1)(a)(ii).

2.c Each emissions unit identified in section A.2.b above is a NOx budget unit under OAC rule 3745-14-01(C)(1).
[OAC rule 3745-14-01(C)(1)(a)(i)]

2.d The NOx authorized account representative shall submit a complete NOx budget permit application in accordance with the deadlines specified in paragraphs (B)(2) and (B)(3) of OAC rule 3745-14-03. The NOx authorized account representative shall also submit, in a timely manner, any supplemental information that the Director determines is necessary in order to review a NOx budget permit application and issue or deny a NOx budget permit.
[OAC rules 3745-14-01(E)(1)(a)(i), 3745-14-01(E)(1)(a)(ii), and 3745-14-03(B)(1)]

2.e Beginning May 31, 2004, the owners and operators of each NOx budget source and each NOx budget unit at the source shall hold NOx allowances available for compliance deductions under paragraph (E) of OAC rule 3745-14-06, as of the NOx allowance transfer deadline, in the unit's compliance account and the source's overdraft account in an amount not less than the total NOx emissions for the control period from the unit, as determined in accordance with OAC rule 3745-14-08, plus any amount necessary to account for actual utilization under paragraph (C)(5) of OAC rule 3745-14-05 for the control period.
[OAC rules 3745-14-01(E)(3)(a) and 3745-14-01(E)(3)(c)]

2.f NOx allowances shall be held in, deducted from, or transferred among NOx allowance tracking system accounts in accordance with OAC rules 3745-14-05, 3745-14-06, 3745-14-07, and 3745-14-09.
[OAC rule 3745-14-01(E)(3)(d)]

A. State and Federally Enforceable Section (continued)

2.g A NOx allowance shall not be deducted, in order to comply with the requirement under paragraph (E)(3)(a) of OAC rule 3745-14-01, for a control period in a year prior to the year for which the NOx allowance was allocated.
[OAC rule 3745-14-01(E)(3)(e)]

2.h Each ton of NOx emitted in excess of the NOx budget emission limitation, as defined in OAC rule 3745-14-01(B)(2)(yy), shall constitute a separate violation of OAC Chapter 3745-14, the Clean Air Act, and applicable Ohio law. The owners and operators of a NOx budget unit that has excess emissions in any control period shall surrender the NOx allowances required for deduction under paragraph (E)(4)(a) of OAC rule 3745-14-06 and pay any fine, penalty, or assessment or comply with any other remedy imposed under paragraph (E)(4)(c) of OAC rule 3745-14-06.
[OAC rules 3745-14-01(E)(3)(b), 3745-14-01(E)(4)(a) and 3745-14-01(E)(4)(b)]

2.i When recorded by the Administrator pursuant to OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from a NOx budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, any NOx budget permit of the NOx budget unit by operation of law without any further review.
[OAC rule 3745-14-01(E)(3)(h)]

2.j Except as provided below, the Director shall revise the NOx budget permit, as necessary, in accordance with OAC rule 3745-77-08.

Each NOx budget permit is deemed to incorporate automatically the definitions of terms under paragraph (B) of OAC rule 3745-14-01 and, when recorded by the Administrator, in accordance with OAC rules 3745-14-06 and 3745-14-07, every allocation, transfer, or deduction of a NOx allowance to or from the compliance accounts of the NOx budget units covered by the permit or the overdraft account of the NOx budget source covered by the permit.
[OAC rules 3745-14-03(D)(2) and 3745-14-03(E)(1)]

2.k The owner or operator of a NOx budget unit shall comply with the prohibitions under OAC rule 3745-14-08(A)(5)
[OAC rule 3745-14-08(A)(5)]

2.l The owners and operators of the NOx budget unit shall keep on site at the source each of the following documents for a period of five years from the date the document is created: (This period may be extended for cause, at any time prior to the end of five years, in writing by the Director or Administrator.)

i. the account certificate of representation for the NOx authorized account representative for the NOx budget unit and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with paragraph (D) of OAC rule 3745-14-02, provided that the certificate and documents shall be retained on site at the source beyond such five-year period until such documents are superseded because of the submission of a new account certificate or representation changing the NOx authorized account representative;

ii. all emission monitoring information, in accordance with OAC rule 3745-14-08;

iii. copies of all reports, compliance certifications, and other submissions and all records made or required under the NOx budget trading program; and

iv. copies of all documents used to complete a NOx budget permit application and any other submission under the NOx budget trading program or to demonstrate compliance with the requirements of the NOx budget trading program.
[OAC rule 3745-14-01(E)(5)(a)(i) through (iv)]

A. State and Federally Enforceable Section (continued)

2.m The permittee shall operate and maintain equipment to continuously monitor and record nitrogen oxides emissions from these emissions units in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75.

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software. This includes all systems required to monitor the NOx emission rate, NOx concentration, heat input rate, and stack flow rate, in accordance with 40 CFR Parts 75.71 and 75.72.

The permittee shall comply with the initial and re-certification procedures of 40 CFR Part 75. The permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous nitrogen oxides monitoring system has been certified in accordance with 40 CFR Part 75. The letter of certification shall be made available to the Director upon request.

The permittee shall maintain records of the following data obtained by the continuous nitrogen oxides monitoring system: emissions of nitrogen oxides in lb/mmBtu actual heat input on an hourly average basis, emissions of nitrogen oxides in lbs/hr, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

Whenever the monitoring system fails to meet the quality assurance or data validation requirements of 40CFR Part 75, data shall be substituted using the applicable procedures in Subpart D, Appendix D, or Appendix E of 40 CFR Part 75.
[OAC rules 3745-14-01(E)(2)(a), 3745-14-01(E)(5)(a)(ii), 3745-14-08(A)(2)(a) through (A)(2)(d), 3745-14-08(B)(1), and 3745-14-08(C)(1)]

2.n The permittee shall comply with the monitoring plan requirements of 40 CFR Part 75.62, except that the monitoring plan shall also include all of the information required by Subpart H of 40 CFR Part 75.
[OAC rule 3745-14-08(E)(2)(a)]

2.o The NOx authorized account representative of the NOx budget unit shall submit the reports and compliance certifications required under the NOx budget trading program, including those under OAC rules 3745-14-04 and 3745-14-08, to the Director and Administrator.
[OAC rule 3745-14-01(E)(5)(b)]

2.p Each submission under the NOx budget trading program shall be submitted, signed, and certified by the NOx authorized account representative for each NOx budget source on behalf of which the submission is made. Each such submission shall include the following certification statement by the NOx authorized account representative:

"I am authorized to make this submission on behalf of the owners and operators of the NOx budget sources or NOx budget units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

If the NOx authorized account representative for a NOx budget unit subject to an acid rain emission limitation who signed and certified any submission that is made under Subpart F or G of 40 CFR Part 75 and which includes data and information required under OAC rule 3745-14-08 or Subpart H of 40 CFR Part 75 is not the same person as the designated representative or the alternate designated representative for the unit under 40 CFR Part 72, then the submission shall also be signed by the designated representative or the alternate designated representative.
[OAC rules 3745-14-02(A)(5) and 3745-14-08(E)(1)(b)]

A. State and Federally Enforceable Section (continued)

2.q The NOx authorized account representative shall submit quarterly reports that include all of the data and information required in Subpart H of 40 CFR Part 75 for each NOx budget unit (or group of units using a common stack) and the data and information in Subpart G of 40 CFR Part 75. These quarterly emission reports shall be submitted by January 30, April 30, July 30 and October 30 of each year and shall be submitted in the manner specified in Subpart H of 40 CFR Part 75 and 40 CFR Part 75.64.
[OAC rules 3745-14-08(E)(4)(a) and 3745-14-08(E)(4)(c)(i)]

2.r The NOx authorized account representative shall submit to the Administrator a compliance certification in support of each quarterly report based on a reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The compliance certification shall state that:

i. the monitoring data submitted were recorded in accordance with the applicable requirements of OAC rule 3745-14-08 and 40 CFR Part 75, including the quality assurance procedures and specifications; and

ii. for a unit with add-on NOx emission controls and for all hours where data are substituted in accordance with 40 CFR Part 75.34(a)(1), the add-on emission control were operating within the range of parameters listed in the quality assurance program under Appendix B of 40 CFR Part 75 and the substitute values do not systematically underestimate the NOx emissions.
[OAC rule 3745-14-08(E)(4)(d)(i) and (ii)]

2.s The NOx authorized account representative for a NOx budget unit shall submit written notice of monitoring system certification and re-certification test dates to the Director and the Administrator in accordance with 40 CFR Part 75.61. The NOx authorized account representative shall submit a certification application to the Administrator, U.S. EPA, Region V Office, and the Director within forty-five days after completing all initial or re-certification tests required under paragraph (B) of OAC rule 3745-14-08, including the information required under Subpart H of 40 CFR Part 75.
[OAC rules 3745-14-08(D) and 3745-14-08(E)(3)]

2.t For each control period in which one or more NOx budget units at a source are subject to the NOx budget emission limitation, the NOx authorized account representative of the source shall submit to the Director and the Administrator, by November 30 of that year, a compliance certification report for each source covering all such units.

The NOx authorized account representative shall include the following elements in the compliance certification report, in a format prescribed by the Administrator, concerning each unit at the source and subject to the NOx budget emission limitation for the control period covered by the report:

i. identification of each NOx budget unit;

ii. at the NOx authorized account representative's option, the serial numbers of the NOx allowances that are to be deducted from each unit's compliance account under paragraph (E) of OAC rule 3745-14-06 for the control period;

iii. at the NOx authorized account representative's option, for units sharing a common stack and having NOx emissions that are not monitored separately or apportioned in accordance with OAC rule 3745-14-08, the percentage of allowances that is to be deducted from each unit's compliance account under paragraph (E)(5) of OAC rule 3745-14-06; and

iv. the compliance certification under paragraph (A)(3) of OAC rule 3745-14-04.
[OAC rules 3745-14-04(A)(1) and 3745-14-04(A)(2)]

A. State and Federally Enforceable Section (continued)

2.u In the compliance certification report under section A.2.t.iv above, the NOx authorized account representative shall certify, based upon reasonable inquiry of those persons with the primary responsibility for operating the source and the NOx budget units at the source in compliance with the NOx budget trading program, whether each NOx budget unit for which the compliance certification is submitted was operated during the calendar year covered by the report in compliance with the requirements of the NOx budget trading program applicable to the unit, including all the following:

i. whether the unit was operated in compliance with the NOx budget emission limitation;

ii. whether the monitoring plan that governs the unit has been maintained to reflect the actual operation and monitoring of the unit, and contains all information necessary to attribute NOx emissions to the unit, in accordance with OAC rule 3745-14-08;

iii. whether all the NOx emissions from the unit, or group of units (including the unit) using a common stack, were monitored or accounted for through the missing data procedures and reported in the quarterly monitoring reports, including whether conditional data were reported in the quarterly reports in accordance with OAC rule 3745-14-08, and if conditional data were reported, the permittee shall indicate whether the status of all conditional data has been resolved and all necessary quarterly report submissions have been made; and

iv. whether the facts that form the basis for certification under OAC rule 3745-14-08 of each monitor at the unit or group of units (including the unit) using a common stack, or for using an excepted monitoring method or alternative monitoring method approved under OAC rule 3745-14-08, if any, have changed.

If a change is required to be reported under section A.2.u.iv above, specify the nature of the change, the reason for the change, when the change occurred, and how the unit's compliance status was determined subsequent to the change, including what method was used to determine emissions when a change mandated the need for monitor re-certification.
[OAC rule 3745-14-04(A)(3)]

2.v The NOx authorized account representative shall submit a complete NOx budget permit renewal application for the NOx budget source covering the NOx budget units at the source in accordance with paragraph (E) of OAC rule 3745-77-08.
[OAC rule 3745-14-03(B)(3)(a)]

2.w The emission measurements recorded and reported in accordance with OAC rule 3745-14-08 shall be used to determine compliance by the unit with the NOx budget emission limitation under paragraph (E)(3) of OAC rule 3745-14-01.
[OAC rule 3745-14-01(E)(2)(b)]

2.x The permittee shall develop and maintain a written quality assurance/quality control plan for each continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard. The plan shall follow the requirements of 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and a logbook dedicated to the continuous NOx monitoring system must be kept on-site and available for inspection during regular office hours.
[OAC rules 3745-14-08(A)(2)(c) and 3745-14-08(A)(2)(d)]

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility are exempt from permit requirements because they meet the "de minimis" criteria established in OAC rule 3745-15-05:

Z009 - plant 500 gallon gasoline storage tank;
Z010 - plant 500 gallon diesel fuel storage tank;
Z013 - 6,500 gallon acid storage tank;
Z014 - 1,000-gallon acid storage tank for PB1;
Z015 - 1,000-gallon acid storage tank for PB2;
Z016 - PB1 oil/water separator;
Z017 - PB2 oil/water separator;
Z018 - roadways;
Z019 - PB1 intake chiller; and
Z020 - PB2 intake chiller.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: PB1 Aux Boiler (B001)

Activity Description: Power Block 1 Aux Boiler 30.6 MMBTU/hr fired Nat Gas Boiler

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
30.6 mmBtu/hr natural gas-fired boiler	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/mmBtu actual heat input, 1.07 lbs/hr and 1.6 tons per rolling, 12-month period. Sulfur dioxide (SO2) emissions shall not exceed 0.001 lb/mmBtu actual heat input, 0.031 lb/hr and 0.046 ton per rolling, 12-month period. Carbon monoxide (CO) emissions shall not exceed 0.037 lb/mmBtu actual heat input, 1.13 lbs/hr and 1.69 tons per rolling, 12-month period. Volatile organic compounds (VOC) emissions shall not exceed 0.016 lb/mmBtu actual heat input, 0.49 lb/hr and 0.74 ton per rolling, 12-month period. Particulate (PM/PM10) emissions shall not exceed 0.01 lb/mmBtu actual heat input, 0.31 lb/hr and 0.46 ton per rolling, 12-month period See section A.I.2.b below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/04)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Dc, OAC rule 3745-18-06(A), OAC 3745-17-10(B)(1), OAC rule 3745-17-07(A), 40 CFR 52.21, OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B).
	40 CFR Part 60, Subpart Dc	See section A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-31-05(C)	See sections A.I.2.c and A.II.2 below.
	OAC rule 3745-21-08(B)	See section A.I.2.d below.
	OAC rule 3745-23-06(B)	See section A.I.2.e below.
	OAC rule 3745-18-06(A)	See section A.I.2.a below.
	OAC rule 3745-17-10(B)(1)	See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The requirements of this applicable rule are less stringent than the requirements of 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.b 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, low sulfur fuel and low NOx burners constitutes BACT for this emissions unit. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above.

2.c The requirements of this applicable rule are equivalent to the NOx, SO2, and PM/PM10 emissions per 40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

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

2. Additional Terms and Conditions (continued)

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

II. Operational Restrictions

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

(Authority for term: PTI 07-00503)

2. The maximum annual fuel heat input for this emissions unit shall not exceed 91,500 mmBtu, based upon a rolling, 12-month summation of heat input values.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping 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.

(Authority for term: PTI 07-00503)

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

(Authority for term: PTI 07-00503)

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

a. monthly fuel heat input (mmBtu); and

b. the rolling, 12-month summation of fuel heat input (mmBtu).

(Authority for term: PTI 07-00503)

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.

(Authority for term: PTI 07-00503)

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI 07-00503)

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel heat input limitation.

These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.035 lb/mmBtu and 1.07 lbs/hr NOx

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.035 lb/mmBtu.

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the manufacturer supplied NOx emission factor (0.035 lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

1.b Emission Limtiation:

0.001 lb/mmBtu and 0.031 lb/hr SO2

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.001 lb/mmBtu.

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied SO2 emission factor (0.001 lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

1.c Emission Limitation:

0.037 lb/mmBtu and 1.13 lbs/hr CO

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.037 lb/mmBtu.

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the manufacturer supplied CO emission factor (0.037 lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.d Emission Limitation:

0.016 lb/mmBtu and 0.49 lb/hr VOC

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.016 lb/mmBtu.

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied VOC emission factor (lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

1.e Emission Limitation:

0.01 lb/mmBtu and 0.31 lb/hr PM/PM10

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.01 lb/mmBtu.

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied PM/PM10 emission factor (lb/mmBtu) by the actual heat input rate (mmBtu/hr)

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

(Authority for term: PTI 07-00503)

1.f Emission Limitations:

Emissions, in tons per rolling, 12-month period, shall not exceed the following:

NOx - 1.6;
SO2 - 0.046;
PM/PM10 - 0.46;
CO - 1.69; and
VOC - 0.74.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated by multiplying the actual fuel heat input (mmBtu/yr) by the associated emission factors (lb/mmBtu) specified in section A.V or emissions unit specific emission factors established through emission testing, and then dividing by 2,000 lbs/ton.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.g Emission Limitation:

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

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
30.6 mmBtu/hr natural gas-fired boiler		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit [PTI 07-00503] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Ammonia
TLV (ug/m3): 17000
Maximum Hourly Emission Rate (lb/hr): 151.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 153.83
MAGLC (ug/m3): 405

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

III. Monitoring and/or Record Keeping Requirements (continued)

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000
Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004 combined.

(Authority for term: PTI 07-00503)

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

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

(Authority for term: PTI 07-00503)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: PB2 Aux Boiler (B002)

Activity Description: Power Block 2 Aux Boiler 30.6 MMBTU/hr fired Nat Gas Boiler

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
30.6 mmBtu/hr natural gas-fired boiler	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/mmBtu actual heat input, 1.07 lbs/hr and 1.6 tons per rolling, 12-month period. Sulfur dioxide (SO2) emissions shall not exceed 0.001 lb/mmBtu actual heat input, 0.031 lb/hr and 0.046 ton per rolling, 12-month period. Carbon monoxide (CO) emissions shall not exceed 0.037 lb/mmBtu actual heat input, 1.13 lbs/hr and 1.69 tons per rolling, 12-month period. Volatile organic compounds (VOC) emissions shall not exceed 0.016 lb/mmBtu actual heat input, 0.49 lb/hr and 0.74 ton per rolling, 12-month period. Particulate (PM/PM10) emissions shall not exceed 0.01 lb/mmBtu actual heat input, 0.31 lb/hr and 0.46 ton per rolling, 12-month period See section A.I.2.b below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/04)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart Dc, OAC rule 3745-18-06(A), OAC 3745-17-10(B)(1), OAC rule 3745-17-07(A), 40 CFR 52.21, OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B).
	40 CFR Part 60, Subpart Dc	See section A.I.2.a below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-31-05(C)	See sections A.I.2.c and A.II.2 below.
	OAC rule 3745-21-08(B)	See section A.I.2.d below.
	OAC rule 3745-23-06(B)	See section A.I.2.e below.
	OAC rule 3745-18-06(A)	See section A.I.2.a below.
	OAC rule 3745-17-10(B)(1)	See section A.I.2.a below.

2. Additional Terms and Conditions

2.a The requirements of this applicable rule are less stringent than the requirements of 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.b 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, low sulfur fuel and low NOx burners constitutes BACT for this emissions unit. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above.

2.c The requirements of this applicable rule are equivalent to the NOx, SO2, and PM/PM10 emissions per 40 CFR Part 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.d The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

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

2. Additional Terms and Conditions (continued)

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

II. Operational Restrictions

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

(Authority for term: PTI 07-00503)

2. The maximum annual fuel heat input for this emissions unit shall not exceed 91,500 mmBtu, based upon a rolling, 12-month summation of heat input values.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping 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.

(Authority for term: PTI 07-00503)

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

(Authority for term: PTI 07-00503)

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

a. monthly fuel heat input (mmBtu); and

b. the rolling, 12-month summation of fuel heat input (mmBtu).

(Authority for term: PTI 07-00503)

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.

(Authority for term: PTI 07-00503)

2. The permittee shall submit deviation (excursion) reports that identify any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.

These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI 07-00503)

3. The permittee shall submit deviation (excursion) reports that identify all exceedances of the rolling, 12-month fuel heat input limitation.

These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

0.035 lb/mmBtu and 1.07 lbs/hr NOx

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.035 lb/mmBtu.

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the manufacturer supplied NOx emission factor (0.035 lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

1.b Emission Limtiation:

0.001 lb/mmBtu and 0.031 lb/hr SO2

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.001 lb/mmBtu.

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied SO2 emission factor (0.001 lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

1.c Emission Limitation:

0.037 lb/mmBtu and 1.13 lbs/hr CO

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.037 lb/mmBtu.

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the manufacturer supplied CO emission factor (0.037 lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.d Emission Limitation:

0.016 lb/mmBtu and 0.49 lb/hr VOC

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.016 lb/mmBtu.

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied VOC emission factor (lb/mmBtu) by the actual heat input rate (mmBtu/hr).

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

(Authority for term: PTI 07-00503)

1.e Emission Limitation:

0.01 lb/mmBtu and 0.31 lb/hr PM/PM10

Applicable Compliance Method:

Compliance with the lb/mmBtu emission limitation may be demonstrated using the manufacturer supplied emission factor of 0.01 lb/mmBtu.

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the manufacturer supplied PM/PM10 emission factor (lb/mmBtu) by the actual heat input rate (mmBtu/hr)

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

(Authority for term: PTI 07-00503)

1.f Emission Limitations:

Emissions, in tons per rolling, 12-month period, shall not exceed the following:

NOx - 1.6;
SO2 - 0.046;
PM/PM10 - 0.46;
CO - 1.69; and
VOC - 0.74.

Applicable Compliance Method:

Compliance with the annual emission limitations shall be demonstrated by multiplying the actual fuel heat input (mmBtu/yr) by the associated emission factors (lb/mmBtu) specified in section A.V or emissions unit specific emission factors established through emission testing, and then dividing by 2,000 lbs/ton.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.g Emission Limitation:

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

Applicable Compliance Method:

If required, compliance shall be demonstrated in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
30.6 mmBtu/hr natural gas-fired boiler		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit [PTI 07-00503] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Ammonia
TLV (ug/m3): 17000
Maximum Hourly Emission Rate (lb/hr): 151.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 153.83
MAGLC (ug/m3): 405

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

III. Monitoring and/or Record Keeping Requirements (continued)

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000
Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004 combined.

(Authority for term: PTI 07-00503)

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

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

(Authority for term: PTI 07-00503)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: HRSG 1GT1 (P001)

Activity Description: 1GT1 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 1 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	EMISSION LIMITS WITHOUT DUCT BURNER FIRING Nitrogen oxides (NOx) emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period). NOx emissions shall not exceed 21.1 lbs/hr. Particulate (PM/PM10) emissions shall not exceed 15 lbs/hr. Sulfur dioxide (SO2) emissions shall not exceed 11 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 25.7 lbs/hr. Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr. Sulfuric acid (H2SO4) emissions shall not exceed 1.68 lbs/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NOx emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
		NOx emissions shall not exceed 27.8 lbs/hr. PM/PM10 emissions shall not exceed 23.3 lbs/hr. SO2 emissions shall not exceed 14.4 lbs/hr. CO emissions shall not exceed 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 50.3 lbs/hr. VOC emissions shall not exceed 20.4 lbs/hr. H2SO4 emissions shall not exceed 2.2 lbs/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NOx emissions shall not exceed 121.2 tpy based on a rolling, 12-month average. SO2 emissions shall not exceed 52.82 tpy based on a rolling, 12-month average. PM/PM10 emissions shall not exceed 88.53 tpy based on a rolling, 12-month average. CO emissions shall not exceed 278.0 tpy based on a rolling, 12-month average. VOC emissions shall not exceed 65.1 tpy based on a rolling, 12-month average. H2SO4 emissions shall not exceed 8.07 tpy based on a rolling, 12-month average. See section A.I.2.d below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/2004)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, OAC rule 3745-18-06(F), OAC rule 3745-17-11 (B)(4), OAC rule 3745-17-07(A), 40 CFR 52.21, OAC rules 3745-31-10 through 3745-31-20, OAC rule 3734-31-05(C), OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B). EMISSION LIMITS WITHOUT DUCT BURNER FIRING Ammonia (NH3) emissions shall not exceed 28 lbs/hr. Formaldehyde emissions shall not exceed 0.45 lb/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NH3 emissions shall not exceed 37.8 lbs/hr. Formaldehyde emissions shall not exceed 0.494 lb/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NH3 emissions shall not exceed 140.01 tpy. Formaldehyde emissions shall not exceed 2.09 tpy. Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.
	OAC rule 3745-31-05(C)	See sections A.I.2.e and A.II.4 below.
	40 CFR Part 60, Subpart GG	See section A.I.2.b below.
	40 CFR Part 60, Subpart Da	See section A.I.2.a below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR Part 75	See section A.I.2.c below.
	OAC chapter 3745-14	See Part II, section A.2.
	OAC rule 3745-21-08(B)	See section A.I.2.f below.
	OAC rule 3745-23-06(B)	See section A.I.2.g below.
	OAC rule 3745-18-06(F)	See section A.I.2.a below.
	OAC rule 3745-17-11(B)(4)	See section A.I.2.a below.
	OAC rule 3745-17-07(A)	See section A.I.2.a below.
	OAC chapter 3745-103	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emission limitation required by this applicable rule is equivalent to or less stringent than the emission limitation established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.b The emission limitations required by this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20. Except as provided for in the terms and conditions of this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC chapter 103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

2.d The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, SO2, CO, PM10, H2SO4, and VOC. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above. The following determinations have been made for each pollutant:

PM - Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PM emissions are PM10.

NOx - Use of DLN burners and employment of SCR with a controlled rate of 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

CO - Use of good combustion practices with a rate of 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period) without duct firing and 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period) with duct firing.

VOC - Use of efficient combustion technology in the operation of the turbine.

SO2 - Burning natural gas in an efficient combustion turbine and burning low sulfur fuel.

H2SO4 - Burning natural gas in an efficient combustion turbine.

2.e The requirements of this applicable rule are equivalent to the NOx, SO2 and PM/PM10 emissions per 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2. Additional Terms and Conditions (continued)

2.f The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing ot comply with best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to install 07-00503.

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

2.g The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

II. Operational Restrictions

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

(Authority for term: PTI 07-00503)

2. Startup shall be defined as the period between when the combustion turbine is initially started until the combustion turbine achieves combustion operational Mode 6. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. Mode 6 is defined by the manufacturer as the low emissions mode during which all 6 of the burner nozzles are in use, burning a lean premixed gas for steady-state operation (i.e., in compliance with the NOx and CO lbs/hr emission limitations listed in section A.I.1). The continuous emission monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shutdown and when operating in start-up and shutdown modes. This system will also be used to demonstrate compliance with the NOx and CO emissions limitations during steady-state operation (Mode 6) and startups/shutdowns.

Startups shall not exceed 250 minutes in duration and shutdowns shall not exceed 120 minutes in duration. The total of all start-ups and shutdowns shall be limited to 260 cycles (each cycle consists of one start-up and one shutdown) per year.

Each startup and shutdown shall be limited to the following:

Pollutant	Maximum Emission Rate (lbs/hr per turbine)
NOx	400
CO	1,658
VOC	94

Compliance with the above CO and NOx lbs/hr startup and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system based on a 1-hour block average. Compliance with the VOC lbs/hr startup and shutdown emission limitation shall be demonstrated through the record keeping requirements specified in section A.III of this permit.

(Authority for term: PTI 07-00503)

3. Except during periods of startup, the SCR shall be in operation at all times including periods of shutdown mode of the unit.

(Authority for term: PTI 07-00503)

4. The maximum annual hours of operation of the duct burners for this emissions unit shall not exceed 5,500 hours, based upon a rolling, 12-month summation.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements

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

a. the natural gas usage rate (in standard cubic feet);

b. the hours of operation of the combustion turbine;

c. the hours of operation of the duct burner;

d. the rolling, 12-month summation of the operating hours of the duct burner;

e. the number of start-ups, and the duration, in minutes, of each start-up;

f. the number of shutdowns, and the duration, in minutes, of each shutdown;

g. the total number of start-up/shutdown cycles;

h. the VOC emissions for each start-up/shutdown event, in tons, by using the emission factor of 94 pounds per hour during startup and shutdown;

i. the total VOC emissions, in tons, not including start-up/shutdown emissions;

j. the total NOx emissions, in tons, including start-up/shutdown emissions;

k. the total CO emissions, in tons, including start-up/shutdown emissions;

l. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., h+i);

m. the total SO2, PM/PM10, NH3, formaldehyde, and H2SO4 emissions, in pounds;

n. the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions;

o. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;

p. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and

q. the rolling, 12-month summation of the SO2, H2SO4 and PM/PM10 emissions, in tons.

(Authority for term: PTI 07-00503)

2. The permittee shall operate and maintain equipment to continuously monitor* and record NOx emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis and emissions of NOx in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the NOx CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the NOx CEMS.

* The installation and operation of systems to continuously monitor and record emissions of NOx 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).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record CO emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one-minute) basis and emissions of CO in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the CO CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the CO CEMS.

(Authority for term: PTI 07-00503)

4. The permittee shall operate and maintain equipment to continuously monitor and record O2 emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous O2 monitoring system including, but not limited to, percent O2 on an instantaneous (one-minute) basis, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

(Authority for term: PTI 07-00503)

5. The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

(Authority for term: PTI 07-00503)

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. In accordance with 40 CFR Part 60, Subpart GG, section 60.334 (h)(3), the permittee has demonstrated that the gaseous fuel meets the definition of natural gas in 40 CFR Part 60, Subpart GG, section 60.331(u). Therefore, fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D. Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the of the fuel's sulfur content is required annually and whenever the fuel supply sources change.

(Authority for term: PTI 07-00503)

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

(Authority for term: PTI 07-00503)

8. 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.

(Authority for term: PTI 07-00503)

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 occurred.

(Authority for term: PTI 07-00503)

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

a. all exceedances of the rolling, 12-month duct burner operating hours limitation;

b. all records which show that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;

c. all records which show that the start-up duration exceeded 250 minutes;

d. all records which show that the shutdown duration exceeded 120 minutes;

e. all records which show that the total number of start-up/shutdown cycles exceeded 260;

f. all exceedances of the NOx, CO, and/or VOC start-up limitations; and

g. all exceedances of the rolling, 12-month NOx, CO, VOC, SO2, and/or PM/PM10 emission limitations.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

(Authority for term: PTI 07-00503)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NOx emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emission 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, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting all instances of continuous O2 monitoring system down time 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.

(Authority for term: PTO 07-00503)

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

(Authority for term: PTI 07-00503)

7. The permittee shall submit annual reports that specify the total NOx, CO, PM/PM10, SO2, VOC, NH3, formaldehyde, and H2SO4 emissions from this emissions unit for the previous calendar year. The reports shall be submitted by January 31 of each year.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

NOx emissions shall not exceed:

3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period);
21.1 lbs/hr without duct firing;
27.8 lbs/hr with duct firing; and
121.2 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, shall be demonstrated based upon the NOx and oxygen CEMS and the records required pursuant to this permit.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 20, and the procedures required under 40 CFR Part 60.335.

(Authority for term: PTI 07-00503)

1.b Emission Limitations:

PM/PM10 emissions shall not exceed:

15 lbs/hr without duct burner firing;
23.3 lbs/hr with duct burner firing; and
88.53 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific PM/PM10 emission factors established during the emissions testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.c Emission Limitations:

SO2 emissions shall not exceed:

11 lbs/hr without duct burner firing;
14.4 lbs/hr with duct burner firing; and
52.82 tpy based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the lbs/hr emission limitations may be demonstrated by the record keeping requirements specified in section A.III. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authroity for term: PTI 07-00503)

1.d Emission Limitations:

VOC emissions shall not exceed:

3.2 lbs/hr without duct burner firing;
20.4 lbs/hr with duct burner firing; and
65.1 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation, including startup and shut down emissions, shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.e Emission Limitations:

CO emissions shall not exceed:

6 ppmvd at 15% oxygen without duct burner firing (based on a 24-hour block averaging period);
9 ppmvd at 15% oxygen with duct burner firing (based on a 24-hour block averaging period);
25.7 lbs/hr without duct burner firing;
50.3 lbs/hr with duct burner firing; and
278.0 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, may be demonstrated based upon the CO and O2 CEMS and the record keeping requirements specified in section A.III.

If required, the permittee shall demonstrate compliance with the allowable outlet concentration and the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

(Authority for term: PTI 07-00503)

1.f Emission Limitations:

NH3 emissions shall not exceed:

28 lbs/hr without duct burner firing;
37.8 lbs/hr with duct burner firing; and
140.01 tpy.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific NH3 emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with CTM-027 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.g Emission Limitations:

Formaldehyde emissions shall not exceed:

0.45 lb/hr without duct burner firing;
0.494 lb/hr with duct burner firing; and
2.09 tpy.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with SW-846 Method 0011 or EPA Method 316 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

1.h Emission Limitations:

H2SO4 emissions shall not exceed:

1.68 lbs/hr without duct burner firing;
2.2 lbs/hr with duct burner firing; and
8.07 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the emission factor of 0.0009 lb/mmBtu (supplied by permittee) by the maximum heat input. Compliance with the tpy emission limitation shall be demonstrated based upon the record keeping requirements specified in section A.III.

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

(Authority for term: PTI 07-00503)

1.i Emission Limitation:

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

Applicable Compliance Method:

Initial compliance with the visible particulate emission limitation was demonstrated through visible emission observations performed in June, 2003. If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P001 shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.

(Authority for term: PTI 07-00503)

2. The permittee shall operate the continuous NOx, CO and O2 monitoring systems in accordance with the written quality assurance/quality control plan to ensure continuous valid and representative readings of NOx, CO, and O2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F or as approved by the Ohio EPA, Central Office and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and logbook dedicated to the continuous NOx, CO, and O2 monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: PTI 07-00503)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 1 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit [PTI 07-00503] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Ammonia
TLV (ug/m3): 17000
Maximum Hourly Emission Rate (lb/hr): 151.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 153.83
MAGLC (ug/m3): 405

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

III. Monitoring and/or Record Keeping Requirements (continued)

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000
Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004, combined.

(Authority for term: PTI 07-00503)

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

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

(Authority for term: PTI 07-00503)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: HRSG 1GT2 (P002)

Activity Description: 1GT2 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 2 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	EMISSION LIMITS WITHOUT DUCT BURNER FIRING Nitrogen oxides (NOx) emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period). NOx emissions shall not exceed 21.1 lbs/hr. Particulate (PM/PM10) emissions shall not exceed 15 lbs/hr. Sulfur dioxide (SO2) emissions shall not exceed 11 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 25.7 lbs/hr. Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr. Sulfuric acid (H2SO4) emissions shall not exceed 1.68 lbs/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NOx emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
		NOx emissions shall not exceed 27.8 lbs/hr. PM/PM10 emissions shall not exceed 23.3 lbs/hr. SO2 emissions shall not exceed 14.4 lbs/hr. CO emissions shall not exceed 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 50.3 lbs/hr. VOC emissions shall not exceed 20.4 lbs/hr. H2SO4 emissions shall not exceed 2.2 lbs/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NOx emissions shall not exceed 121.2 tpy based on a rolling, 12-month average. SO2 emissions shall not exceed 52.82 tpy based on a rolling, 12-month average. PM/PM10 emissions shall not exceed 88.53 tpy based on a rolling, 12-month average. CO emissions shall not exceed 278.0 tpy based on a rolling, 12-month average. VOC emissions shall not exceed 65.1 tpy based on a rolling, 12-month average. H2SO4 emissions shall not exceed 8.07 tpy based on a rolling, 12-month average. See section A.I.2.d below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/2004)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, OAC rule 3745-18-06(F), OAC rule 3745-17-11 (B)(4), OAC rule 3745-17-07(A), 40 CFR 52.21, OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B). EMISSION LIMITS WITHOUT DUCT BURNER FIRING Ammonia (NH3) emissions shall not exceed 28 lbs/hr. Formaldehyde emissions shall not exceed 0.45 lb/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NH3 emissions shall not exceed 37.8 lbs/hr. Formaldehyde emissions shall not exceed 0.494 lb/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NH3 emissions shall not exceed 140.01 tpy. Formaldehyde emissions shall not exceed 2.09 tpy. Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.
	OAC rule 3745-31-05(C)	See sections A.I.2.e and A.II.4 below.
	40 CFR Part 60, Subpart GG	See section A.I.2.b below.
	40 CFR Part 60, Subpart Da	See section A.I.2.a below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR Part 75	See section A.I.2.c below.
	OAC chapter 3745-14	See Part II, section A.2.
	OAC rule 3745-21-08(B)	See section A.I.2.f below.
	OAC rule 3745-23-06(B)	See section A.I.2.g below.
	OAC rule 3745-18-06(F)	See section A.I.2.a below.
	OAC rule 3745-17-11(B)(4)	See section A.I.2.a below.
	OAC rule 3745-17-07(A)	See section A.I.2.a below.
	OAC chapter 3745-103	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emission limitation required by this applicable rule is equivalent to or less stringent than the emission limitation established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.b The emission limitations required by this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20. Except as provided for in the terms and conditions of this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC chapter 103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

2.d The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, SO2, CO, PM10, H2SO4, and VOC. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above. The following determinations have been made for each pollutant:

PM - Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PM emissions are PM10.

NOx - Use of DLN burners and employment of SCR with a controlled rate of 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

CO - Use of good combustion practices with a rate of 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period) without duct firing and 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period) with duct firing.

VOC - Use of efficient combustion technology in the operation of the turbine.

SO2 - Burning natural gas in an efficient combustion turbine and burning low sulfur fuel.

H2SO4 - Burning natural gas in an efficient combustion turbine.

2.e The requirements of this applicable rule are equivalent to the NOx, SO2 and PM/PM10 emissions per 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2. Additional Terms and Conditions (continued)

2.f The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing ot comply with best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to install 07-00503.

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

2.g The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

II. Operational Restrictions

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

(Authority for term: PTI 07-00503)

2. Startup shall be defined as the period between when the combustion turbine is initially started until the combustion turbine achieves combustion operational Mode 6. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. Mode 6 is defined by the manufacturer as the low emissions mode during which all 6 of the burner nozzles are in use, burning a lean premixed gas for steady-state operation (i.e., in compliance with the NOx and CO lbs/hr emission limitations listed in section A.I.1). The continuous emission monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shutdown and when operating in start-up and shutdown modes. This system will also be used to demonstrate compliance with the NOx and CO emissions limitations during steady-state operation (Mode 6) and startups/shutdowns.

Startups shall not exceed 250 minutes in duration and shutdowns shall not exceed 120 minutes in duration. The total of all start-ups and shutdowns shall be limited to 260 cycles (each cycle consists of one start-up and one shutdown) per year.

Each startup and shutdown shall be limited to the following:

Pollutant	Maximum Emission Rate (lbs/hr per turbine)
NOx	400
CO	1,658
VOC	94

Compliance with the above CO and NOx lbs/hr startup and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system based on a 1-hour block average. Compliance with the VOC lbs/hr startup and shutdown emission limitations shall be demonstrated through the record keeping requirements specified in section A.III of this permit.

(Authority for term: PTI 07-00503)

3. Except during periods of startup, the SCR shall be in operation at all times including periods of shutdown mode of the unit.

(Authority for term: PTI 07-00503)

4. The maximum annual hours of operation of the duct burners for this emissions unit shall not exceed 5,500 hours, based upon a rolling, 12-month summation.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements

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

a. the natural gas usage rate (in standard cubic feet);

b. the hours of operation of the combustion turbine;

c. the hours of operation of the duct burner;

d. the rolling, 12-month summation of the operating hours of the duct burner;

e. the number of start-ups, and the duration, in minutes, of each start-up;

f. the number of shutdowns, and the duration, in minutes, of each shutdown;

g. the total number of start-up/shutdown cycles;

h. the VOC emissions for each start-up/shutdown event, in tons, by using the emission factor of 94 pounds per hour during startup and shutdown;

i. the total VOC emissions, in tons, not including start-up/shutdown emissions;

j. the total NOx emissions, in tons, including start-up/shutdown emissions;

k. the total CO emissions, in tons, including start-up/shutdown emissions;

l. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., h+i);

m. the total SO2, PM/PM10, NH3, formaldehyde, and H2SO4 emissions, in pounds;

n. the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions;

o. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;

p. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and

q. the rolling, 12-month summation of the SO2, H2SO4 and PM/PM10 emissions, in tons.

(Authority for term: PTI 07-00503)

2. The permittee shall operate and maintain equipment to continuously monitor* and record NOx emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis and emissions of NOx in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the NOx CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the NOx CEMS.

* The installation and operation of systems to continuously monitor and record emissions of NOx 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).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record CO emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one-minute) basis and emissions of CO in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the CO CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the CO CEMS.

(Authority for term: PTI 07-00503)

4. The permittee shall operate and maintain equipment to continuously monitor and record O2 emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous O2 monitoring system including, but not limited to, percent O2 on an instantaneous (one-minute) basis, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

(Authority for term: PTI 07-00503)

5. The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

(Authority for term: PTI 07-00503)

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. In accordance with 40 CFR Part 60, Subpart GG, section 60.334 (h)(3), the permittee has demonstrated that the gaseous fuel meets the definition of natural gas in 40 CFR Part 60, Subpart GG, section 60.331(u). Therefore, fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D. Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the of the fuel's sulfur content is required annually and whenever the fuel supply sources change.

(Authority for term: PTI 07-00503)

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

(Authority for term: PTI 07-00503)

8. 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.

(Authority for term: PTI 07-00503)

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 occurred.

(Authority for term: PTI 07-00503)

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

a. all exceedances of the rolling, 12-month duct burner operating hours limitation;

b. all records which show that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;

c. all records which show that the start-up duration exceeded 250 minutes;

d. all records which show that the shutdown duration exceeded 120 minutes;

e. all records which show that the total number of start-up/shutdown cycles exceeded 260;

f. all exceedances of the NOx, CO, and/or VOC start-up limitations; and

g. all exceedances of the rolling, 12-month NOx, CO, VOC, SO2, and/or PM/PM10 emission limitations.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

(Authority for term: PTI 07-00503)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NOx emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting all instances of continuous O2 monitoring system down time 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.

(Authority for term: PTO 07-00503)

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

(Authority for term: PTI 07-00503)

7. The permittee shall submit annual reports that specify the total NOx, CO, PM/PM10, SO2, VOC, NH3, formaldehyde, and H2SO4 emissions from this emissions unit for the previous calendar year. The reports shall be submitted by January 31 of each year.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

NOx emissions shall not exceed:

3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period);
21.1 lbs/hr without duct firing;
27.8 lbs/hr with duct firing; and
121.2 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, shall be demonstrated based upon the NOx and oxygen CEMS and the records required pursuant to this permit.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 20, and the procedures required under 40 CFR Part 60.335.

(Authority for term: PTI 07-00503)

1.b Emission Limitations:

PM/PM10 emissions shall not exceed:

15 lbs/hr without duct burner firing;
23.3 lbs/hr with duct burner firing; and
88.53 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific PM/PM10 emission factors established during the emissions testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.c Emission Limitations:

SO2 emissions shall not exceed:

11 lbs/hr without duct burner firing;
14.4 lbs/hr with duct burner firing; and
52.82 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated by the record keeping requirement specified in section A.III. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authroity for term: PTI 07-00503)

1.d Emission Limitations:

VOC emissions shall not exceed:

3.2 lbs/hr without duct burner firing;
20.4 lbs/hr with duct burner firing; and
65.1 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A. III and the emissions unit specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation, including startup and shut down emissions, shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.e Emission Limitations:

CO emissions shall not exceed:

6 ppmvd at 15% oxygen without duct burner firing (based on a 24-hour block averaging period);
9 ppmvd at 15% oxygen with duct burner firing (based on a 24-hour block averaging period);
25.7 lbs/hr without duct burner firing;
50.3 lbs/hr with duct burner firing; and
278.0 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, may be demonstrated based upon the CO and O2 CEMS and the record keeping requirements specified in section A.III.

If required, the permittee shall demonstrate compliance with the allowable outlet concentration and the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

(Authority for term: PTI 07-00503)

1.f Emission Limitations:

NH3 emissions shall not exceed:

28 lbs/hr without duct burner firing;
37.8 lbs/hr with duct burner firing; and
140.01 tpy.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific NH3 emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with CTM-027 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.g Emission Limitations:

Formaldehyde emissions shall not exceed:

0.45 lb/hr without duct burner firing;
0.494 lb/hr with duct burner firing; and
2.09 tpy.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations was demonstrated through emission testing performed in June, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with SW-846 Method 0011 or EPA Method 316 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

1.h Emission Limitations:

H2SO4 emissions shall not exceed:

1.68 lbs/hr without duct burner firing;
2.2 lbs/hr with duct burner firing; and
8.07 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the emission factor of 0.0009 lb/mmBtu (supplied by permittee) by the maximum heat input. Compliance with the tpy emission limitation shall be demonstrated based upon the record keeping requirements specified in section A.III.

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

(Authority for term: PTI 07-00503)

1.i Emission Limitation:

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

Applicable Compliance Method:

Initial compliance with the visible particulate emission limitation was demonstrated through visible emission observations performed in June, 2003. If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P002 shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.

(Authority for term: PTI 07-00503)

2. The permittee shall operate the continuous NOx, CO and O2 monitoring systems in accordance with the written quality assurance/quality control plan to ensure continuous valid and representative readings of NOx, CO, and O2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F or as approved by the Ohio EPA, Central Office and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and logbook dedicated to the continuous NOx, CO, and O2 monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: PTI 07-00503)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 2 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit [PTI 07-00503] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Ammonia
TLV (ug/m3): 17000
Maximum Hourly Emission Rate (lb/hr): 151.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 153.83
MAGLC (ug/m3): 405

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

III. Monitoring and/or Record Keeping Requirements (continued)

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000
Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004, combined.

(Authority for term: PTI 07-00503)

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

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

(Authority for term: PTI 07-00503)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: HRSG 2GT1 (P003)

Activity Description: 2GT1 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 3 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	EMISSION LIMITS WITHOUT DUCT BURNER FIRING Nitrogen oxides (NOx) emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period). NOx emissions shall not exceed 21.1 lbs/hr. Particulate (PM/PM10) emissions shall not exceed 15 lbs/hr. Sulfur dioxide (SO2) emissions shall not exceed 11 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 25.7 lbs/hr. Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr. Sulfuric acid (H2SO4) emissions shall not exceed 1.68 lbs/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NOx emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
		NOx emissions shall not exceed 27.8 lbs/hr. PM/PM10 emissions shall not exceed 23.3 lbs/hr. SO2 emissions shall not exceed 14.4 lbs/hr. CO emissions shall not exceed 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 50.3 lbs/hr. VOC emissions shall not exceed 20.4 lbs/hr. H2SO4 emissions shall not exceed 2.2 lbs/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NOx emissions shallnot exceed 121.2 tpy based on a rolling, 12-month average. SO2 emissions shall not exceed 52.82 tpy based on a rolling, 12-month average. PM/PM10 emissions shall not exceed 88.53 tpy based on a rolling, 12-month average. CO emissions shall not exceed 278.0 tpy based on a rolling, 12-month average. VOC emissions shall not exceed 65.1 tpy based on a rolling, 12-month average. H2SO4 emissions shall not exceed 8.07 tpy based on a rolling, 12-month average. See section A.I.2.d below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/2004)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, OAC rule 3745-18-06(F), OAC rule 3745-17-11 (B)(4), OAC rule 3745-17-07(A), 40 CFR 52.21, OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B). EMISSION LIMITS WITHOUT DUCT BURNER FIRING Ammonia (NH3) emissions shall not exceed 28 lbs/hr. Formaldehyde emissions shall not exceed 0.45 lb/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NH3 emissions shall not exceed 37.8 lbs/hr. Formaldehyde emissions shall not exceed 0.494 lb/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NH3 emissions shall not exceed 140.01 tpy. Formaldehyde emissions shall not exceed 2.09 tpy. Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.
	OAC rule 3745-31-05(C)	See sections A.I.2.e and A.II.4 below.
	40 CFR Part 60, Subpart GG	See section A.I.2.b below.
	40 CFR Part 60, Subpart Da	See section A.I.2.a below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR Part 75	See section A.I.2.c below.
	OAC chapter 3745-14	See Part II, section A.2.
	OAC rule 3745-21-08(B)	See section A.I.2.f below.
	OAC rule 3745-23-06(B)	See section A.I.2.g below.
	OAC rule 3745-18-06(F)	See section A.I.2.a below.
	OAC rule 3745-17-11(B)(4)	See section A.I.2.a below.
	OAC rule 3745-17-07(A)	See section A.I.2.a below.
	OAC chapter 3745-103	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emission limitation required by this applicable rule is equivalent to or less stringent than the emission limitation established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.b The emission limitations required by this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20. Except as provided for in the terms and conditions of this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC chapter 103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

2.d The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, SO2, CO, PM10, H2SO4, and VOC. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above. The following determinations have been made for each pollutant:

PM - Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PM emissions are PM10.

NOx - Use of DLN burners and employment of SCR with a controlled rate of 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

CO - Use of good combustion practices with a rate of 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period) without duct firing and 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period) with duct firing.

VOC - Use of efficient combustion technology in the operation of the turbine.

SO2 - Burning natural gas in an efficient combustion turbine and burning low sulfur fuel.

H2SO4 - Burning natural gas in an efficient combustion turbine.

2.e The requirements of this applicable rule are equivalent to the NOx, SO2 and PM/PM10 emissions per 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2. Additional Terms and Conditions (continued)

2.f The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing ot comply with best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to install 07-00503.

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

2.g The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

II. Operational Restrictions

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

(Authority for term: PTI 07-00503)

2. Startup shall be defined as the period between when the combustion turbine is initially started until the combustion turbine achieves combustion operational Mode 6. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. Mode 6 is defined by the manufacturer as the low emissions mode during which all 6 of the burner nozzles are in use, burning a lean premixed gas for steady-state operation (i.e., in compliance with the NOx and CO lbs/hr emission limitations listed in section A.I.1). The continuous emission monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shutdown and when operating in start-up and shutdown modes. This system will also be used to demonstrate compliance with the NOx and CO emissions limitations during steady-state operation (Mode 6) and startups/shutdowns.

Startups shall not exceed 250 minutes in duration and shutdowns shall not exceed 120 minutes in duration. The total of all start-ups and shutdowns shall be limited to 260 cycles (each cycle consists of one start-up and one shutdown) per year.

Each startup and shutdown shall be limited to the following:

Pollutant	Maximum Emission Rate (lbs/hr per turbine)
NOx	400
CO	1,658
VOC	94

Compliance with the above CO and NOx lbs/hr startup and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system based on a 1-hour block average. Compliance with the VOC lbs/hr startup and shutdown emission limitations shall be demonstrated through the record keeping requirements specified in section A.III of this permit.

(Authority for term: PTI 07-00503)

3. Except during periods of startup, the SCR shall be in operation at all times including periods of shutdown mode of the unit.

(Authority for term: PTI 07-00503)

4. The maximum annual hours of operation of the duct burners for this emissions unit shall not exceed 5,500 hours, based upon a rolling, 12-month summation.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements

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

a. the natural gas usage rate (in standard cubic feet);

b. the hours of operation of the combustion turbine;

c. the hours of operation of the duct burner;

d. the rolling, 12-month summation of the operating hours of the duct burner;

e. the number of start-ups, and the duration, in minutes, of each start-up;

f. the number of shutdowns, and the duration, in minutes, of each shutdown;

g. the total number of start-up/shutdown cycles;

h. the VOC emissions for each start-up/shutdown event, in tons, by using the emission factor of 94 pounds per hour during startup and shutdown;

i. the total VOC emissions, in tons, not including start-up/shutdown emissions;

j. the total NOx emissions, in tons, including start-up/shutdown emissions;

k. the total CO emissions, in tons, including start-up/shutdown emissions;

l. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., h+i);

m. the total SO2, PM/PM10, NH3, formaldehyde, and H2SO4 emissions, in pounds;

n. the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions;

o. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;

p. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and

q. the rolling, 12-month summation of the SO2, H2SO4 and PM/PM10 emissions, in tons.

(Authority for term: PTI 07-00503)

2. The permittee shall operate and maintain equipment to continuously monitor* and record NOx emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis and emissions of NOx in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the NOx CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the NOx CEMS.

* The installation and operation of systems to continuously monitor and record emissions of NOx 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).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record CO emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one-minute) basis and emissions of CO in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the CO CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the CO CEMS.

(Authority for term: PTI 07-00503)

4. The permittee shall operate and maintain equipment to continuously monitor and record O2 emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous O2 monitoring system including, but not limited to, percent O2 on an instantaneous (one-minute) basis, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

(Authority for term: PTI 07-00503)

5. The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

(Authority for term: PTI 07-00503)

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. In accordance with 40 CFR Part 60, Subpart GG, section 60.334 (h)(3), the permittee has demonstrated that the gaseous fuel meets the definition of natural gas in 40 CFR Part 60, Subpart GG, section 60.331(u). Therefore, fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D. Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the of the fuel's sulfur content is required annually and whenever the fuel supply sources change.

(Authority for term: PTI 07-00503)

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

(Authority for term: PTI 07-00503)

8. 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.

(Authority for term: PTI 07-00503)

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 occurred.

(Authority for term: PTI 07-00503)

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

a. all exceedances of the rolling, 12-month duct burner operating hours limitation;

b. all records which show that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;

c. all records which show that the start-up duration exceeded 250 minutes;

d. all records which show that the shutdown duration exceeded 120 minutes;

e. all records which show that the total number of start-up/shutdown cycles exceeded 260;

f. all exceedances of the NOx, CO, and/or VOC start-up limitations; and

g. all exceedances of the rolling, 12-month NOx, CO, VOC, SO2, and/or PM/PM10 emission limitations.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

(Authority for term: PTI 07-00503)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NOx emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting all instances of continuous O2 monitoring system down time 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.

(Authority for term: PTO 07-00503)

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

(Authority for term: PTI 07-00503)

7. The permittee shall submit annual reports that specify the total NOx, CO, PM/PM10, SO2, VOC, NH3, formaldehyde, and H2SO4 emissions from this emissions unit for the previous calendar year. The reports shall be submitted by January 31 of each year.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

NOx emissions shall not exceed:

3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period);
21.1 lbs/hr without duct firing;
27.8 lbs/hr with duct firing; and
121.2 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, shall be demonstrated based upon the NOx and O2 CEMS and the records required pursuant to this permit.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 20, and the procedures required under 40 CFR Part 60.335.

(Authority for term: PTI 07-00503)

1.b Emission Limitations:

PM/PM10 emissions shall not exceed:

15 lbs/hr without duct burner firing;
23.3 lbs/hr with duct burner firing; and
88.53 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific PM/PM10 emission factors established during the emissions testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.c Emission Limitations:

SO2 emissions shall not exceed:

11 lbs/hr without duct burner firing;
14.4 lbs/hr with duct burner firing; and
52.82 tpy based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the lbs/hr emission limitations may be demonstrated by the record keeping requirements specified in section A.III. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

1.d Emission Limitations:

VOC emissions shall not exceed:

3.2 lbs/hr without duct burner firing;
20.4 lbs/hr with duct burner firing; and
65.1 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation, including startup and shut down emissions, shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.e Emission Limitation:

CO emissions shall not exceed:

6 ppmvd at 15% oxygen without duct burner firing (based on a 24-hour block averaging period);
9 ppmvd at 15% oxygen with duct burner firing (based on a 24-hour block averaging period);
25.7 lbs/hr without duct burner firing;
50.3 lbs/hr with duct burner firing; and
278.0 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, may be demonstrated based upon the CO and O2 CEMS and the record keeping requirements specified in section A.III of this permit.

If required, the permittee shall demonstrate compliance with the allowable outlet concentration and the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

(Authority for term: PTI 07-00503)

1.f Emission Limitations:

NH3 emissions shall not exceed:

28 lbs/hr without duct burner firing;
37.8 lbs/hr with duct burner firing; and
140.01 tpy.

Applicable Compliance Methods:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific NH3 emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with CTM-027 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.g Emission Limitations:

Formaldehyde emission shall not exceed:

0.45 lb/hr without duct burner firing;
0.494 lb/hr with duct burner firing; and
2.09 tpy.

Applicable Compliance Methods:

Initial compliance with the lb/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific formaldehyde emission factors established during the emissions testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with SW-846 Method 0011 or EPA Method 316 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

1.h Emission Limitations:

H2SO4 emissions shall not exceed:

1.68 lbs/hr without duct burner firing;
2.2 lbs/hr with duct burner firing; and
8.07 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the emission factor of 0.0009 lb/mmBtu (supplied by permittee) by the maximum heat input. Compliance with the tpy emission limitation shall be demonstrated based upon the record keeping requirements specified in section A.III.

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

(Authority for term: PTI 07-00503)

1.i Emission Limitation:

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

Applicable Compliance Method:

Initial compliance with the visible particulate emission limitation was demonstrated through visible emission observations performed in July, 2003. If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P003 shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.

(Authority for term: PTI 07-00503)

2. The permittee shall operate the continuous NOx, CO and O2 monitoring systems in accordance with the written quality assurance/quality control plan to ensure continuous valid and representative readings of NOx, CO, and O2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F or as approved by the Ohio EPA, Central Office and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and logbook dedicated to the continuous NOx, CO, and O2 monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: PTI 07-00503)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 3 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit [PTI 07-00503] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Ammonia
TLV (ug/m3): 17000
Maximum Hourly Emission Rate (lb/hr): 151.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 153.83
MAGLC (ug/m3): 405

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

III. Monitoring and/or Record Keeping Requirements (continued)

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000
Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004, combined.

(Authority for term: PTI 07-00503)

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

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

(Authority for term: PTI 07-00503)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: HRSG 2GT2 (P004)

Activity Description: 2GT2 HRSG 170 MW GE 7FA Gas Turbine with Duct Firing Capability

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 4 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	EMISSION LIMITS WITHOUT DUCT BURNER FIRING Nitrogen oxides (NOx) emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period). NOx emissions shall not exceed 21.1 lbs/hr. Particulate (PM/PM10) emissions shall not exceed 15 lbs/hr. Sulfur dioxide (SO2) emissions shall not exceed 11 lbs/hr. Carbon monoxide (CO) emissions shall not exceed 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 25.7 lbs/hr. Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr. Sulfuric acid (H2SO4) emissions shall not exceed 1.68 lbs/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NOx emissions shall not exceed 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
		NOx emissions shall not exceed 27.8 lbs/hr. PM/PM10 emissions shall not exceed 23.3 lbs/hr. SO2 emissions shall not exceed 14.4 lbs/hr. CO emissions shall not exceed 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period). CO emissions shall not exceed 50.3 lbs/hr. VOC emissions shall not exceed 20.4 lbs/hr. H2SO4 emissions shall not exceed 2.2 lbs/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NOx emissions shall not exceed 121.2 tpy based on a rolling, 12-month average. SO2 emissions shall not exceed 52.82 tpy based on a rolling, 12-month average. PM/PM10 emissions shall not exceed 88.53 tpy based on a rolling, 12-month average. CO emissions shall not exceed 278.0 tpy based on a rolling, 12-month average. VOC emissions shall not exceed 65.1 tpy based on a rolling, 12-month average. H2SO4 emissions shall not exceed 8.07 tpy based on a rolling, 12-month average. See section A.I.2.d below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/2004)	The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, OAC rule 3745-18-06(F), OAC rule 3745-17-11 (B)(4), OAC rule 3745-17-07(A), 40 CFR 52.21, OAC rules 3745-31-10 through 3745-31-20, OAC rule 3745-31-05(C), OAC rule 3745-21-08(B) and OAC rule 3745-23-06(B). EMISSION LIMITS WITHOUT DUCT BURNER FIRING Ammonia (NH3) emissions shall not exceed 28 lbs/hr. Formaldehyde emissions shall not exceed 0.45 lb/hr. EMISSION LIMITS WITH DUCT BURNER FIRING (limited to 5,500 hours per year) NH3 emissions shall not exceed 37.8 lbs/hr. Formaldehyde emissions shall not exceed 0.494 lb/hr. TOTAL ANNUAL EMISSIONS (including 3,260 hours per year without duct burners, 5,500 hours per year with duct burners, startups and shutdowns) NH3 emissions shall not exceed 140.01 tpy of NH3. Formaldehyde emissions shall not exceed 2.09 tpy. Visible particulate emissions shall not exceed 10% opacity as a 6-minute average.
	OAC rule 3745-31-05(C)	See sections A.I.2.e and A.II.4 below.
	40 CFR Part 60, Subpart GG	See section A.I.2.b below.
	40 CFR Part 60, Subpart Da	See section A.I.2.a below.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
	40 CFR Part 75	See section A.I.2.c below.
	OAC chapter 3745-14	See Part II, section A.2.
	OAC rule 3745-21-08(B)	See section A.I.2.f below.
	OAC rule 3745-23-06(B)	See section A.I.2.g below.
	OAC rule 3745-18-06(F)	See section A.I.2.a below.
	OAC rule 3745-17-11(B)(4)	See section A.I.2.a below.
	OAC rule 3745-17-07(A)	See section A.I.2.a below.
	OAC chapter 3745-103	See section A.I.2.c below.

2. Additional Terms and Conditions

2.a The emission limitation required by this applicable rule is equivalent to or less stringent than the emission limitation established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2.b The emission limitations required by this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20. Except as provided for in the terms and conditions of this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.

2.c If the permittee is subject to the requirements of OAC chapter 103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

2.d The permittee is required to perform a Best Available Control Technology (BACT) review for NOx, SO2, CO, PM10, H2SO4, and VOC. The emission limitations based on the BACT requirements are listed under 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20 above. The following determinations have been made for each pollutant:

PM - Burning natural gas in an efficient combustion turbine. For this permit, it is assumed that all PM emissions are PM10.

NOx - Use of DLN burners and employment of SCR with a controlled rate of 3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period).

CO - Use of good combustion practices with a rate of 6 ppmvd at 15% oxygen (based on a 24-hour block averaging period) without duct firing and 9 ppmvd at 15% oxygen (based on a 24-hour block averaging period) with duct firing.

VOC - Use of efficient combustion technology in the operation of the turbine.

SO2 - Burning natural gas in an efficient combustion turbine and burning low sulfur fuel.

H2SO4 - Burning natural gas in an efficient combustion turbine.

2.e The requirements of this applicable rule are equivalent to the NOx, SO2 and PM/PM10 emissions per 40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20.

2. Additional Terms and Conditions (continued)

2.f The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing ot comply with best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to install 07-00503.

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

2.g The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 07-00503.

II. Operational Restrictions

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

(Authority for term: PTI 07-00503)

2. Startup shall be defined as the period between when the combustion turbine is initially started until the combustion turbine achieves combustion operational Mode 6. Shutdown shall be defined as the period beginning when the combustion turbine leaves operational Mode 6 and ending when combustion has ceased. Mode 6 is defined by the manufacturer as the low emissions mode during which all 6 of the burner nozzles are in use, burning a lean premixed gas for steady-state operation (i.e., in compliance with the NOx and CO lbs/hr emission limitations listed in section A.I.1). The continuous emission monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shutdown and when operating in start-up and shutdown modes. This system shall also be used to demonstrate compliance with the NOx and CO emission limitations during steady-state operation (Mode 6) and startups/shutdowns.

Startups shall not exceed 250 minutes in duration and shutdowns shall not exceed 120 minutes in duration. The total of all start-ups and shutdowns shall be limited to 260 cycles (each cycle consists of one start-up and one shutdown) per year.

Each startup and shutdown shall be limited to the following:

Pollutant	Maximum Emission Rate (lbs/hr per turbine)
NOx	400
CO	1,658
VOC	94

Compliance with the above CO and NOx lbs/hr startup and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system based on a 1-hour block average. Compliance with the VOC lbs/hr startup and shutdown emission limitations shall be demonstrated through the record keeping requirements specified in section A.III of this permit.

(Authority for term: PTI 07-00503)

3. Except during periods of startup, the SCR shall be in operation at all times including periods of shutdown mode of the unit.

(Authority for term: PTI 07-00503)

4. The maximum annual hours of operation of the duct burners for this emissions unit shall not exceed 5,500 hours, based upon a rolling, 12-month summation.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements

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

a. the natural gas usage rate (in standard cubic feet);

b. the hours of operation of the combustion turbine;

c. the hours of operation of the duct burner;

d. the rolling, 12-month summation of the operating hours of the duct burner;

e. the number of start-ups, and the duration, in minutes, of each start-up;

f. the number of shutdowns, and the duration, in minutes, of each shutdown;

g. the total number of start-up/shutdown cycles;

h. the VOC emissions for each start-up/shutdown event, in tons, by using the emission factor of 94 pounds per hour during startup and shutdown;

i. the total VOC emissions, in tons, not including start-up/shutdown emissions;

j. the total NOx emissions, in tons, including start-up/shutdown emissions;

k. the total CO emissions, in tons, including start-up/shutdown emissions;

l. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., h+i);

m. the total SO2, PM/PM10, NH3, formaldehyde, and H2SO4 emissions, in pounds;

n. the rolling, 12-month summation of the NOx emissions, in tons, including start-up/shutdown emissions;

o. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;

p. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and

q. the rolling, 12-month summation of the SO2, H2SO4 and PM/PM10 emissions, in tons.

(Authority for term: PTI 07-00503)

2. The permittee shall operate and maintain equipment to continuously monitor* and record NOx emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous NOx monitoring system including, but not limited to, parts per million NOx on an instantaneous (one-minute) basis and emissions of NOx in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the NOx CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the NOx CEMS.

* The installation and operation of systems to continuously monitor and record emissions of NOx 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).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall operate and maintain equipment to continuously monitor and record CO emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one-minute) basis and emissions of CO in units established in this permit in the appropriate averaging period during Mode 6, and including start-up and shutdown, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

In conjunction with the operation of the CO CEMS, the permittee shall operate and maintain a system to monitor when the duct burners are being fired. The data measured by this system shall be compiled with the data recorded by the CO CEMS.

(Authority for term: PTI 07-00503)

4. The permittee shall operate and maintain equipment to continuously monitor and record O2 emissions 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 and/or 40 CFR Part 75, or as approved by the Ohio EPA, Central Office.

The permittee shall maintain records of all data obtained by the continuous O2 monitoring system including, but not limited to, percent O2 on an instantaneous (one-minute) basis, the results of daily zero/span calibration checks, and the magnitudes of manual calibration adjustments.

(Authority for term: PTI 07-00503)

5. The permittee shall operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the approved data substitution protocol.

(Authority for term: PTI 07-00503)

6. The permittee shall monitor the sulfur content and gross calorific value of the fuel being fired in the combustion turbine and duct burner. In accordance with 40 CFR Part 60, Subpart GG, section 60.334 (h)(3), the permittee has demonstrated that the gaseous fuel meets the definition of natural gas in 40 CFR Part 60, Subpart GG, section 60.331(u). Therefore, fuel sampling and analysis shall be conducted according to the procedures and at the frequency specified by 40 CFR Part 75, Appendix D. Per 40 CFR Part 75, Appendix D section 2.3.1.4, the permittee has demonstrated that the gaseous fuel is pipeline natural gas. Therefore, ongoing sampling of the of the fuel's sulfur content is required annually and whenever the fuel supply sources change.

(Authority for term: PTI 07-00503)

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

(Authority for term: PTI 07-00503)

8. 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.

(Authority for term: PTI 07-00503)

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 occurred.

(Authority for term: PTI 07-00503)

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

a. all exceedances of the rolling, 12-month duct burner operating hours limitation;

b. all records which show that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;

c. all records which show that the start-up duration exceeded 250 minutes;

d. all records which show that the shutdown duration exceeded 120 minutes;

e. all records which show that the total number of start-up/shutdown cycles exceeded 260;

f. all exceedances of the NOx, CO, and/or VOC start-up limitations; and

g. all exceedances of the rolling, 12-month NOx, CO, VOC, SO2, and/or PM/PM10 emission limitations.

The quarterly deviation reports shall be submitted in accordance with the requirements specified in Part 1 - General Term and Condition A.1.c of this permit.

(Authority for term: PTI 07-00503)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total NOx emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values, as recorded by the CEMS in excess of the applicable limits specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the missing data procedures specified in 40 CFR Part 75 and/or the approved data substitution protocol.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, reason, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report.

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

Pursuant to OAC rules 3745-15-04, 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 Portsmouth local air agency within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

(Authority for term: PTI 07-00503)

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth local air agency documenting all instances of continuous O2 monitoring system down time 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.

(Authority for term: PTO 07-00503)

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

(Authority for term: PTI 07-00503)

7. The permittee shall submit annual reports that specify the total NOx, CO, PM/PM10, SO2, VOC, NH3, formaldehyde, and H2SO4 emissions from this emissions unit for the previous calendar year. The reports shall be submitted by January 31 of each year.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitations:

NOx emissions shall not exceed:

3.0 ppmvd at 15% oxygen (based on a 3-hour block averaging period);
21.1 lbs/hr without duct firing;
27.8 lbs/hr with duct firing;
121.2 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, shall be demonstrated based upon the NOx and O2 CEMS and the records required pursuant to this permit.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 20, and the procedures required under 40 CFR Part 60.335.

(Authority for term: PTI 07-00503)

1.b Emission Limitations:

PM/PM10 emissions shall not exceed:

15 lbs/hr without duct burner firing;
23.3 lbs/hr with duct burner firing; and
88.53 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific PM/PM10 emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.c Emission Limitations:

SO2 emissions shall not exceed:

11 lbs/hr without duct burner firing;
14.4 lbs/hr with duct burner firing; and
52.82 tpy based on a rolling, 12-month summation.

Applicable Compliance Methods:

Compliance with the lbs/hr emission limitations may be demonstrated by the record keeping requirements specified in section A.III. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

1.d Emission Limitations:

VOC emissions shall not exceed:

3.2 lbs/hr without duct burner firing;
20.4 lbs/hr with duct burner firing; and
65.1 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation, including startup and shut down emissions, shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

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

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.e Emission Limitations:

CO emissions shall not exceed:

6 ppmvd at 15% oxygen without duct burner firing (based on a 24-hour block averaging period);
9 ppmvd at 15% oxygen with duct burner firing (based on a 24-hour block averaging period);
25.7 lbs/hr without duct burner firing;
50.3 lbs/hr with duct burner firing; and
278.0 tpy based on a rolling, 12-month summation, including startup and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration and the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including startup and shutdown emissions, may be demonstrated based upon the CO and O2 CEMS and the record keeping requirements specified in section A.III.

If required, the permittee shall demonstrate compliance with the allowable outlet concentration and the hourly emission limitations through emission testing performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 10.

(Authority for term: PTI 07-00503)

1.f Emission Limitations:

NH3 emissions shall not exceed:

28 lbs/hr without duct burner firing;
37.8 lbs/hr with duct burner firing; and
140.01 tpy.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific NH3 emission factors established during the emissions testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with CTM-027 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.g Emission Limitations:

Formaldehyde emission shall not exceed:

0.45 lb/hr without duct burner firing;
0.494 lb/hr with duct burner firing; and
2.09 tpy.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations was demonstrated through emission testing performed in July, 2003. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the record keeping requirements specified in section A.III and the emissions unit specific formaldehyde emission factors established during the emissions testing that demonstrated that the emissions unit was in compliance. Compliance with the tpy emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual annual hours of operation, and then dividing by 2000 lbs/ton.

If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission testing performed in accordance with SW-846 Method 0011 or EPA Method 316 or other USEPA-approved methods.

(Authority for term: PTI 07-00503)

1.h Emission Limitations:

H2SO4 emissions shall not exceed:

1.68 lbs/hr without duct burner firing;
2.2 lbs/hr with duct burner firing; and
8.07 tpy based on a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated by multiplying the emission factor of 0.0009 lb/mmBtu (supplied by permittee) by the maximum heat input. Compliance with the tpy emission limitation shall be demonstrated based upon the record keeping requirements specified in section A.III.

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

(Authority for term: PTI 07-00503)

1.i Emission Limitation:

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

Applicable Compliance Method:

Initial compliance with the visible particulate emission limitation was demonstrated through visible emission observations performed in July, 2003. If required, compliance shall be demonstrated through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on emissions unit P004 shall be operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.

(Authority for term: PTI 07-00503)

2. The permittee shall operate the continuous NOx, CO and O2 monitoring systems in accordance with the written quality assurance/quality control plan to ensure continuous valid and representative readings of NOx, CO, and O2 emissions in units of the applicable standard. The plan shall follow the requirements of the appropriate sections of 40 CFR Part 60, Appendix F or as approved by the Ohio EPA, Central Office and 40 CFR Part 75, Appendix B. The quality assurance/quality control plan and logbook dedicated to the continuous NOx, CO, and O2 monitoring system must be kept on site and available for inspection during regular office hours.

(Authority for term: PTI 07-00503)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
172 MW GE 7FA natural gas-fired dry low NOx (DLN) combustion turbine No. 4 with duct firing operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)		

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

1. The permit to install for this emissions unit [PTI 07-00503] 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 to this emissions unit for each toxic pollutant, using data from the permit to install application, and modeling was performed for the toxic pollutant(s) emitted at over a ton per year using the SCREEN 3.0 model or other Ohio EPA approved model. The predicted 1-hour maximum ground-level concentration result(s) from the use of the SCREEN 3.0 (or other approved) model, was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC), calculated as required in Engineering Guide #70. The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: Formaldehyde
TLV (ug/m3): 272
Maximum Hourly Emission Rate (lb/hr): 1.98*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.93
MAGLC (ug/m3): 6.48

Pollutant: Sulfuric Acid
TLV (ug/m3): 1000
Maximum Hourly Emission Rate (lb/hr): 8.8*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 8.875
MAGLC (ug/m3): 24

Pollutant: Ammonia
TLV (ug/m3): 17000
Maximum Hourly Emission Rate (lb/hr): 151.2*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 153.83
MAGLC (ug/m3): 405

Pollutant: Toluene
TLV (ug/m3): 188,000
Maximum Hourly Emission Rate (lb/hr): 1.02*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 6.023
MAGLC (ug/m3): 4476

III. Monitoring and/or Record Keeping Requirements (continued)

Pollutant: Xylene
TLV (ug/m3): 434,000
Maximum Hourly Emission Rate (lb/hr): 0.5*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.94
MAGLC (ug/m3): 10333

Pollutant: Acetaldehyde
TLV (ug/m3): 180,000
Maximum Hourly Emission Rate (lb/hr): 0.311*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.842
MAGLC (ug/m3): 4286

Pollutant: Hexane
TLV (ug/m3): 176,000
Maximum Hourly Emission Rate (lb/hr): 0.44*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 2.585
MAGLC (ug/m3): 4190

Pollutant: Zinc
TLV (ug/m3): 5000
Maximum Hourly Emission Rate (lb/hr): 0.29*
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.69
MAGLC (ug/m3): 119

* This was modeled for emissions units B001, B002, P001, P002, P003 and P004, combined.

(Authority for term: PTI 07-00503)

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

a. changes in the composition of the materials used or the use of new materials, that would result in the emission of a compound or chemical with a lower Threshold Limit Value (TLV) than the lowest TLV previously modeled, as documented in the most current version of the American Conference of Governmental Industrial Hygienists' (ACGIH's) handbook entitled "TLVs and BEIs" ("Threshold Limit Values for Chemical Substances and Physical Agents, Biological Exposure Indices");

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.).

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements (continued)

3. 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 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) meet(s) the definition of a "modification" under other provisions of the rule, then the permittee shall obtain a final permit to install prior to the change.

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

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

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

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

(Authority for term: PTI 07-00503)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: PB1 Cooling Tower (P005)

Activity Description: Power Block 1 Multi-Cell Wet Mechanical Draft Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 Cell Mechanical Draft Cooling Tower	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	Particulate (PM/PM10) emissions shall not exceed 2.60 lbs/hr. PM/PM10 emissions shall not exceed 11.39 tpy based on a rolling, 12-month average. See section A.1.2 a below.
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/04)	See section A.I.2 b below.
	OAC rule 3745-17-11(B)(4)	See section A.I.2 c below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. See section A.I.2 d below.

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 PM/PM10. The implementation of drift eliminators constitute BACT for this emissions unit.

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

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

2.d It shall not be deemed to be a violation of this rule, where the presence of uncombined water is the only reason for visible particulate emissions from the stack exceeding 20% opacity as a 6-minute average.

II. Operational Restrictions

1. The permittee shall maintain an average total dissolved solids content of 3,000 ppm or less in the combined circulating cooling water discharge for emissions units P005 and P006.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements

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

a. test and record the total dissolved solids content of the combined circulating water discharge for emissions units P005 and P006, in ppm; and

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

(Authority for term: PTI 07-00503)

2. The permittee shall maintain monthly records of the hours of operation of this emissions unit.

(Authority for term: OAC rule 3745-77-07(C))

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the average total dissolved solids content limitation. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the allowable emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitations:

PM/PM10 emissions shall not exceed 2.60 lbs/hr and 11.39 tpy.

Applicable Compliance Methods:

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the maximum drift loss factor of 0.001 percent by the circulating water flow rate (gal/min), and by the average total dissolved solid content (ppm) of the cooling water, and by the appropriate conversion factors (8.34 lbs/gal, 60 min/hr), and then dividing by 1,000,000 (ppm).

If required, the permittee shall submit a testing proposal that will demonstrate that the maximum drift loss does not exceed 0.001 percent.

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual monthly operating hours, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.b Emission Limitation:

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

Applicable Compliance Method:

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

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: PB2 Cooling Tower (P006)

Activity Description: Power Block 2 Multi-Cell Wet Mechanical Draft Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures
10 Cell Mechanical Draft Cooling Tower	40 CFR 52.21 and OAC rules 3745-31-10 through 3745-31-20	Particulate (PM/PM10) emissions shall not exceed 2.60 lbs/hr. PM/PM10 emissions shall not exceed 11.39 tpy based on a rolling, 12-month average. See section A.1.2 a below.
	OAC rule 3745-31-05(A)(3) (PTI 07-00503 as issued 12/28/04)	See section A.I.2 b below.
	OAC rule 3745-17-11(B)(4)	See section A.I.2 c below.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule. See section A.I.2 d below.

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 PM/PM10. The implementation of drift eliminators constitute BACT for this emissions unit.

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

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

2.d It shall not be deemed to be a violation of this rule, where the presence of uncombined water is the only reason for visible particulate emissions from the stack exceeding 20% opacity as a 6-minute average.

II. Operational Restrictions

1. The permittee shall maintain an average total dissolved solids content of 3,000 ppm or less in the combined circulating cooling water discharge for emissions units P005 and P006.

(Authority for term: PTI 07-00503)

III. Monitoring and/or Record Keeping Requirements

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

a. test and record the total dissolved solids content of the combined circulating water discharge for emissions units P005 and P006, in ppm; and

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

(Authority for term: PTI 07-00503)

2. The permittee shall maintain monthly records of the hours of operation of this emissions unit.

(Authority for term: OAC rule 3745-77-07(C)

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify any exceedances of the average total dissolved solids content limitation. These reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI 07-00503)

V. Testing Requirements

1. Compliance with the allowable emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

1.a Emission Limitation:

PM/PM10 emissions shall not exceed 2.60 lbs/hr and 11.39 tpy.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the maximum drift loss factor of 0.001 percent by the circulating water flow rate (gal/min), and by the average total dissolved solid content (ppm) of the cooling water, and by the appropriate conversion factors (8.34 lbs/gal, 60 min/hr), and then dividing by 1,000,000 (ppm).

If required, the permittee shall submit a testing proposal that will demonstrate that the maximum drift loss does not exceed 0.001 percent.

Compliance with the annual emission limitation shall be demonstrated by multiplying the hourly emission rate by the actual monthly operating hours, and then dividing by 2000 lbs/ton. The monthly emissions shall be added to the previous 11 months to determine the rolling, 12-month total emissions.

(Authority for term: PTI 07-00503)

V. Testing Requirements (continued)

1.b Emission Limitation:

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

Applicable Compliance Method:

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

(Authority for term: PTI 07-00503)

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(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 employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/ Requirements	Applicable Emissions Limitations/Control Measures

2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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