



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

04/18/05

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

06-84-00-0212
Duke Energy Washington County
Robert Rothwell Mr
Duke Energy Washington, LLC
P.O. Box 1329
Beverly, OH 45715-1329

Dear Robert Rothwell:

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 Southeast District Office.

Sincerely,

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

cc: Southeast District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: 04/18/05	Effective Date: 05/09/05	Expiration Date: 05/09/10
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This document constitutes issuance of a Title V permit for Facility ID: 06-84-00-0212 to:
 Duke Energy Washington County
 Duke Energy Washington, LLC
 P.O. Box 1329
 Beverly, OH 45715-1329

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

B001 (Auxiliary Boiler) 30.6 MMBtu/hr Natural-Gas Fired Boiler	Selective Catalytic Reduction (SCR)	Selective Catalytic Reduction (SCR)
P001 (CT #1) 170 MW GE 7FA - Natural-Gas Fired Dry Low NOx (DLN) Combustion Turbine with duct firing operating in combined cycle mode controlled by	P002 (CT #2) 170 MW GE 7FA - Natural-Gas Fired Dry Low NOx (DLN) Combustion Turbine with duct firing operating in combined cycle mode controlled by	P003 (Main Cooling Tower) 7 Cell Mechanical Draft Cooling Tower

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:

Southeast District Office
 2195 Front Street
 Logan, OH 43138
 (740) 385-8501

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 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 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 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 reports shall satisfy the requirements (in part) 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. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

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 overrides 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 the requirements (in part) 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:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the 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 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.

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 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))

- 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.

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

Each insignificant activity 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 by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If 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 monitoring, record keeping, reporting, or testing 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.

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 quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

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 Federally Enforceable 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 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;
- 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; and
- 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:

Z001 - emergency generator; and
Z002 - fire pump engine.

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)

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)]

- 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)]

A. State and Federally Enforceable Section (continued)

- 2.h** Each ton of NO_x emitted in excess of the NO_x 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 NO_x budget unit that has excess emissions in any control period shall surrender the NO_x 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 NO_x allowance to or from a NO_x 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 NO_x budget permit of the NO_x 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 NO_x budget permit, as necessary, in accordance with OAC rule 3745-77-08.

Each NO_x 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 NO_x allowance to or from the compliance accounts of the NO_x budget units covered by the permit or the overdraft account of the NO_x 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 NO_x 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 NO_x 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 NO_x authorized account representative for the NO_x 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 NO_x 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 NO_x budget trading program; and
 - iv. copies of all documents used to complete a NO_x budget permit application and any other submission under the NO_x budget trading program or to demonstrate compliance with the requirements of the NO_x 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 40 CFR 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:

- Z003 - 700-gallon diesel fuel storage tank;
- Z009 - 6,000-gallon acid storage tank;
- Z010 - 6,000-gallon ferric sulfate tank;
- Z011 - 6,000-gallon sodium hypochlorite storage tank;
- Z012 - 6,000-gallon sodium hypochlorite storage tank;
- Z013 - oil/water separator; and
- Z014 - roadways.

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Auxiliary Boiler (B001)
Activity Description: 30.6 MMBtu/hr Natural-Gas Fired Boiler

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
30.6 MMBtu/hr Natural Gas-Fired Boiler	OAC rule 3745-31-05(A)(3) (PTI #06-6792 as issued 8/14/2003)	Nitrogen oxides (NOx) emissions shall not exceed 0.035 lb/MMBtu actual heat input, 1.08 lbs/hr, and 2.3 tons/yr.
		Sulfur dioxide (SO2) emissions shall not exceed 0.001 lb/MMBtu actual heat input, 0.031 lb/hr, and 0.07 ton/yr.
		Particulate emissions (PE) shall not exceed 0.01 lb/MMBtu actual heat input, 0.31 lb/hr, and 0.64 ton/yr.
		Carbon monoxide (CO) emissions shall not exceed 0.109 lb/MMBtu actual heat input, 3.34 lbs/hr, and 7.0 tons/yr.
		Volatile organic compounds (VOC) emissions shall not exceed 0.016 lb/MMBtu actual heat input, 0.49 lb/hr, and 1.1 tons/yr.
		See A.II.1 and A.II.2 below.
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08(B), 3745-23-06(B), and 3745-31-10 through 3745-31-20.
	40 CFR Part 60, Subpart Dc OAC rule 3745-18-06(A) OAC rule 3745-17-10(B)(1)	The emission limitations specified by these rules are less stringent than those established pursuant to OAC rule 3745-31-05(A)(3).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	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 3745-21-08(B)	See A.I.2.a below.
	OAC rule 3745-23-06(B)	See A.I.2.b below.
	OAC rules 3745-31-10 through 3745-31-20	NOx emissions shall not exceed 2.3 tons per rolling, 12-month period.
		SO2 emissions shall not exceed 0.07 ton per rolling, 12-month period.
		PE shall not exceed 0.64 ton per rolling, 12-month period.
		CO emissions shall not exceed 7.0 tons per rolling, 12-month period.
		VOC emissions shall not exceed 1.1 tons per rolling, 12-month period.

2. Additional Terms and Conditions

- 2.a** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-6792.

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.b** 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 06-6792.

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 #06-6792)
- 2.** The maximum annual fuel heat input for this emissions unit shall not exceed 128,000 MMBtu, based upon a rolling, 12-month summation of the heat input values.

(Authority for term: PTI #06-6792)

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 #06-6792)

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

(Authority for term: PTI #06-6792)

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

- a. the monthly natural gas usage rate, in standard cubic feet;
- b. monthly fuel heat input (MMBtu);
- c. the rolling, 12-month summation of fuel heat input (MMBtu); and
- d. the rolling, 12-month summation of the PE and the NO_x, SO₂, CO, and VOC emissions, in tons.

(Authority for term: PTI #06-6792)

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 #06-6792)

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

- a. any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;
- b. all exceedances of the rolling, 12-month fuel heat input limitation; and
- c. all exceedances of the rolling, 12-month emission limitations for PE and NO_x, SO₂, CO, and VOC emissions.

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

(Authority for term: PTI #06-6792)

3. The permittee shall submit annual reports that specify the total PE and NO_x, SO₂, CO, and VOC emissions from this emissions unit for the previous calendar year. The annual reports shall be submitted by January 31 of each year.

(Authority for term: PTI #06-6792)

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:

NO_x emissions shall not exceed 0.035 lb/MMBtu, 1.08 lbs/hr, and 2.3 tons/yr.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.035 lb NO_x /MMBtu).

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the permittee-supplied NO_x emission factor (0.035 lb NO_x /MMBtu) by the maximum fuel heat input rate (30.6 MMBtu/hr).

Compliance with the tons/yr emission limitation shall be demonstrated by multiplying the permittee-supplied NO_x emission factor (0.035 lb NO_x/MMBtu) or emissions unit specific NO_x emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2,000 lbs/ton.

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

(Authority for term: PTI #06-6792)

1.b Emission Limitations:

SO₂ emissions shall not exceed 0.001 lb/MMBtu, 0.031 lb/hr, and 0.07 ton/yr.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.001 lb SO₂/MMBtu).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the permittee-supplied SO₂ emission factor (0.001 lb SO₂/MMBtu) by the maximum fuel heat input rate (30.6 MMBtu/hr).

Compliance with the ton/yr emission limitation shall be demonstrated by multiplying the permittee-supplied SO₂ emission factor (0.001 lb SO₂/MMBtu) or emissions unit specific SO₂ emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2,000 lbs/ton.

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

(Authority for term: PTI #06-6792)

V. Testing Requirements (continued)

1.c Emission Limitations:

CO emissions shall not exceed 0.109 lb/MMBtu, 3.34 lbs/hr, and 7.0 tons/yr.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.109 lb CO/MMBtu).

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the permittee-supplied CO emission factor (0.109 lb CO/MMBtu) by the maximum fuel heat input rate (30.6 MMBtu/hr).

Compliance with the tons/yr emission limitation shall be demonstrated by multiplying the permittee-supplied CO emission factor (0.109 lb CO/MMBtu) or emissions unit specific CO emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2,000 lbs/ton.

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

(Authority for term: PTI #06-6792)

1.d Emission Limitations:

VOC emissions shall not exceed 0.016 lb/MMBtu, 0.49 lb/hr, and 1.1 tons/yr.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.016 lb VOC/MMBtu).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the permittee-supplied VOC emission factor (0.016 lb VOC/MMBtu) by the maximum fuel heat input rate (30.6 MMBtu/hr).

Compliance with the tons/yr emission limitation shall be demonstrated by multiplying the permittee-supplied VOC emission factor (0.016 lb VOC/MMBtu) or emissions unit specific VOC emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2,000 lbs/ton.

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

(Authority for term: PTI #06-6792)

V. Testing Requirements (continued)

1.e Emission Limitations:

PE shall not exceed 0.01 lb/MMBtu, 0.31 lb/hr, and 0.64 ton/yr.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.01 lb PE/MMBtu).

Compliance with the lb/hr emission limitation may be demonstrated by multiplying the permittee-supplied PE emission factor (0.01 lb PE/MMBtu) by the maximum fuel heat input rate (30.6 MMBtu/hr).

Compliance with the ton/yr emission limitation shall be demonstrated by multiplying the permittee-supplied PE emission factor (0.01 lb PE/MMBtu) or emissions unit specific PE emission factor established through emission testing by the actual fuel heat input (MMBtu/yr) and dividing by 2,000 lbs/ton.

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

(Authority for term: PTI #06-6792)

1.f Emission Limitations:

NO_x emissions shall not exceed 2.3 tons per rolling, 12-month period.
SO₂ emissions shall not exceed 0.07 ton per rolling, 12-month period.
PE shall not exceed 0.64 ton per rolling, 12-month period.
CO emissions shall not exceed 7.0 tons per rolling, 12-month period.
VOC emissions shall not exceed 1.1 tons per rolling, 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emission limitations shall be demonstrated based upon the records required pursuant to section A.III, using the associated emission factors and calculation methodologies specified in sections A.V.1.a through A.V.1.e.

(Authority for term: PTI #06-6792)

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 with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI #06-6792)

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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: CT #1 (P001)

Activity Description: 170 MW GE 7FA - Natural-Gas Fired Dry Low NOx (DLN) Combustion Turbine with duct firing operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
170 MW GE 7FA, natural gas-fired, dry low NOx (DLN) combustion turbine with duct firing, operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05(A)(3) (PTI #06-6792 as issued 8/14/2003)	<p>EMISSION LIMITATIONS WITHOUT DUCT BURNER FIRING</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 3.5 ppmvd at 15% oxygen based on a 3-hour block averaging period and 24.7 lbs/hr.</p> <p>Particulate emissions (PE) shall not exceed 19.0 lbs/hr.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 11.2 lbs/hr.</p> <p>Carbon monoxide (CO) emissions shall not exceed 10 ppmvd at 15% oxygen based on a 24-hour block averaging period and 43.0 lbs/hr.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 3.0 lbs/hr.</p> <p>Ammonia (NH₃) emissions shall not exceed 26.6 lbs/hr.</p> <p>Formaldehyde emissions shall not exceed 0.8 lb/hr.</p> <p>Sulfuric acid emissions shall not exceed 1.7 lbs/hr.</p> <p>Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.</p> <p>See A.II.1 below.</p>

Facility Name: **Duke Energy Washington County**

Facility ID: **06-84-00-0212**

Emissions Unit: **CT #1 (P001)**

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

EMISSION LIMITATIONS WITH
DUCT BURNER FIRING (limited to
4,500 hours per year)

NOx emissions shall not exceed 3.5
ppmvd at 15% oxygen based on a
3-hour block averaging period and
32.3 lbs/hr.

PE shall not exceed 28.0 lbs/hr.

SO2 emissions shall not exceed
14.5 lbs/hr.

CO emissions shall not exceed 14
ppmvd at 15% oxygen based on a
24-hour block averaging period and
78.0 lbs/hr.

VOC emissions shall not exceed
19.6 lbs/hr.

NH3 emissions shall not exceed
34.6 lbs/hr.

Formaldehyde emissions shall not
exceed 0.82 lb/hr.

Sulfuric acid emissions shall not
exceed 2.2 lbs/hr.

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

See A.II.1 and A.II.3 below.

TOTAL ANNUAL EMISSIONS
(including 4,260 hours per year
without duct burners firing, 4,500
hours per year with duct burners
firing, start-ups, and shutdowns)

NOx emissions shall not exceed
157.5 tons/yr.

PE shall not exceed 103.5 tons/yr.

SO2 emissions shall not exceed
56.5 tons/yr.

CO emissions shall not exceed
453.7 tons/yr. CO emissions during
steady-state operation (Mode 6)
shall not exceed 267.1 tons/yr
(excludes start-up and shutdown
emissions).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		VOC emissions shall not exceed 63.1 tons/yr.
		NH3 emissions shall not exceed 134.5 tons/yr.
		Formaldehyde emissions shall not exceed 3.6 tons/yr.
		Sulfuric acid emissions shall not exceed 8.6 tons/yr.
		The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts Da and GG, and OAC rules 3745-31-10 through 3745-31-20.
	OAC rules 3745-31-10 through 3745-31-20	NOx emissions shall not exceed 157.5 tons per rolling, 12-month period, including start-up and shutdown emissions.
		SO2 emissions shall not exceed 56.5 tons per rolling, 12-month period.
		PE shall not exceed 103.5 tons per rolling, 12-month period.
		CO emissions shall not exceed 453.7 tons per rolling, 12-month period, including start-up and shutdown emissions. CO emissions during steady-state operation (Mode 6) shall not exceed 267.1 tons per rolling, 12-month period (excludes start-up and shutdown emissions).
		VOC emissions shall not exceed 63.1 tons per rolling, 12-month period, including start-up and shutdown emissions.
	40 CFR Part 60, Subpart Da OAC rule 3745-18-06(F) OAC rule 3745-17-11(B)(4) OAC rule 3745-17-07(A)	See A.I.2.a below.
	40 CFR Part 60, Subpart GG	See A.I.2.b below.
	40 CFR Part 75 OAC Chapter 3745-103	See A.I.2.c below.
	OAC rule 3745-21-08(B)	See A.I.2.d below.
	OAC rule 3745-23-06(B)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a** The emission limitations specified in these applicable rules are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The emission limitations specified in this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c** If the permittee is subject to the requirements of OAC Chapter 3745-103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
- 2.d** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-6792.

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.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 06-6792.

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 #06-6792)

II. Operational Restrictions (continued)

2. Start-up 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 term A.I.1). The continuous emissions monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shut down and when operating in start-up and shutdown modes. This system will be used to demonstrate compliance with the NOx and CO emission limitations during steady-state operation (Mode 6) and start-up and shutdown.

Start-ups 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.

The maximum emissions rate during each start-up and shutdown of this emissions unit shall be limited to the following:

Pollutant	Maximum Emissions Rate (lbs/hr)
NOx	400
CO	1658
VOC	94

Compliance with the above CO and NOx start-up and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system, based on a 1-hour block average. Compliance with the VOC start-up and shutdown limitation shall be demonstrated based upon the record keeping required in section A.III of this permit.

(Authority for term: PTI #06-6792)

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

(Authority for term: PTI #06-6792)

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 NO_x emissions, in tons, for all start-up/shutdown cycles based on the data collected and maintained in the Data Acquisition Handling System (DAHS), including data generated pursuant to the approved data substitution protocol;
 - i. the CO emissions, in tons, for all start-up/shutdown cycles based on the data collected and maintained in the DAHS, including data generated pursuant to the approved data substitution protocol;
 - j. the VOC emissions, in tons, for all start-up/shutdown cycles based on the permittee-supplied emission factor of 94 lbs/hr;
 - k. the total NO_x emissions, in tons, including start-up/shutdown emissions;
 - l. the CO emissions during steady-state operation (Mode 6), in tons;
 - m. the total CO emissions, in tons, including start-up/shutdown emissions;
 - n. the total VOC emissions, in tons, not including start-up/shutdown emissions;
 - o. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., j+n);
 - p. the total PE and SO₂, NH₃, formaldehyde, and sulfuric acid emissions, in pounds;
 - q. the rolling, 12-month summation of the NO_x emissions, in tons, including start-up/shutdown emissions;
 - r. the rolling, 12-month summation of the steady-state (Mode 6) CO emissions, in tons;
 - s. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;
 - t. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and
 - u. the rolling, 12-month summations of the SO₂ emissions and PE, in tons.

(Authority for term: PTI #06-6792)

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

2. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period during Mode 6 operation (i.e., ppmvd at 15% oxygen based on a 3-hour block average period and lbs/hr), start-up and shutdown NO_x emissions (i.e., lbs per start-up and shutdown), results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

(Authority for term: PTI #06-6792)

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

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period during Mode 6 operation (i.e., ppmvd at 15% oxygen based on a 24-hour block average period and lbs/hr), start-up and shutdown CO emissions (i.e., lbs per start-up and shutdown), results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

(Authority for term: PTI #06-6792)

4. The permittee shall operate and maintain equipment to continuously monitor and record O₂ emissions from this emissions unit in percent O₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

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

(Authority for term: PTI #06-6792)

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

(Authority for term: PTI #06-6792)

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

(Authority for term: PTI #06-6792)

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined pursuant to term A.III.5 and the fuel gross calorific value as determined pursuant to term 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 #06-6792)

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

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 #06-6792)

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 #06-6792)

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 that show that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;
 - c. all records that show that the start-up duration exceeded 250 minutes;
 - d. all records that show that the shutdown duration exceeded 120 minutes;
 - e. all records that show that the total number of start-up/shutdown cycles exceeded 260;
 - f. all exceedances of the NO_x, CO, and/or VOC start-up/shutdown emission limitations; and
 - g. all exceedances of the rolling, 12-month NO_x, CO, VOC, SO₂, and/or PE emission limitations.

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

(Authority for term: PTI #06-6792)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the approved data substitution protocol.

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

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

(Authority for term: PTI #06-6792)

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the approved data substitution protocol.

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

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

(Authority for term: PTI #06-6792)

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: PTI #06-6792)

6. The permittee shall submit annual reports that specify the total PE and NO_x, CO, SO₂, VOC, NH₃, formaldehyde, and sulfuric acid 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 #06-6792)

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 3.5 ppmvd at 15% oxygen based on a 3-hour block average period, 24.7 lbs/hr without duct burner firing, 32.3 lbs/hr with duct burner firing, and 157.5 tons/yr, including start-up 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, 2002. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including start-up and shutdown emissions, shall be demonstrated based upon the continuous NOx and oxygen monitoring systems data and the records required pursuant to this permit. If required, the permittee shall demonstrate compliance with the allowable outlet concentration and the hourly emission limitations through emission tests 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 #06-6792)

1.b Emission Limitations:

PE shall not exceed 19.0 lbs/hr without duct burner firing, 28.0 lbs/hr with duct burner firing, and 103.5 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

(Authority for term: PTI #06-6792)

1.c Emission Limitations:

SO₂ emissions shall not exceed 11.2 lbs/hr without duct burner firing, 14.5 lbs/hr with duct burner firing, and 56.5 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO₂ emission factor (0.0057 lb SO₂/MMBtu). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6.

(Authority for term: PTI #06-6792)

V. Testing Requirements (continued)

1.d Emission Limitations:

VOC emissions shall not exceed 3.0 lbs/hr without duct burner firing, 19.6 lbs/hr with duct burner firing, and 63.1 tons/yr, including start-up and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25.

(Authority for term: PTI #06-6792)

1.e Emission Limitations:

CO emissions shall not exceed 10 ppmvd at 15% oxygen without duct burner firing based on a 24-hour block average period, 14 ppmvd at 15% oxygen with duct burner firing based on a 24-hour block average period, 43.0 lbs/hr without duct burner firing, 78.0 lbs/hr with duct burner firing, 267.1 tons/yr during steady-state (Mode 6) operation (excludes start-up and shutdown emissions) and 453.7 tons/yr, including start-up and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentrations and the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including start-up and shutdown emissions, shall be demonstrated based upon the continuous CO and oxygen monitoring systems data and the records required pursuant to this permit. If required, the permittee shall demonstrate compliance with the allowable outlet concentrations and the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 10.

(Authority for term: PTI #06-6792)

1.f Emission Limitations:

NH₃ emissions shall not exceed 26.6 lbs/hr without duct burner firing, 34.6 lbs/hr with duct burner firing, and 134.5 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NH₃ emission factor (0.0136 lb NH₃/MMBtu). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

(Authority for term: PTI #06-6792)

V. Testing Requirements (continued)

1.g Emission Limitations:

Formaldehyde emissions shall not exceed 0.8 lb/hr without duct burner firing, 0.82 lb/hr with duct burner firing, and 3.6 tons/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with SW-846 Method 0011.

(Authority for term: PTI #06-6792)

1.h Emission Limitations:

Sulfuric acid emissions shall not exceed 1.7 lbs/hr without duct burner firing, 2.2 lbs/hr with duct burner firing, and 8.6 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factor (0.0009 lb sulfuric acid/MMBtu). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 8.

(Authority for term: PTI #06-6792)

1.i Emission Limitations:

Visible particulate emissions from any stack 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 emissions observations performed in July, 2002. If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI #06-6792)

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on this emissions unit 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 #06-6792)

Facility Name: **Duke Energy Washington County**

Facility ID: **06-84-00-0212**

Emissions Unit: **CT #1 (P001)**

VI. Miscellaneous Requirements (continued)

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

(Authority for term: PTI #06-6792)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
170 MW GE 7FA, natural gas-fired, dry low NOx (DLN) combustion turbine 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

- The permit to install for this emissions unit (P001) was evaluated based on actual materials (typically coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
 TLV (ug/m3): 273 (Converted from the STEL)
 Maximum Hourly Emission Rate (lbs/hr): 1.64*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.04
 MAGLC (ug/m3): 6.5

Pollutant: Sulfuric Acid
 TLV (ug/m3): 1000
 Maximum Hourly Emission Rate (lbs/hr): 4.4*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4.07
 MAGLC (ug/m3): 23.8

Pollutant: Ammonia
 TLV (ug/m3): 17000
 Maximum Hourly Emission Rate (lbs/hr): 69.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 21.5
 MAGLC (ug/m3): 404.8

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

(Authority for term: PTI #06-6792)

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

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 with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

(Authority for term: PTI #06-6792)

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

(Authority for term: PTI #06-6792)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: CT #2 (P002)

Activity Description: 170 MW GE 7FA - Natural-Gas Fired Dry Low NOx (DLN) Combustion Turbine with duct firing operating in combined cycle mode controlled by Selective Catalytic Reduction (SCR)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
170 MW GE 7FA, natural gas-fired, dry low NOx (DLN) combustion turbine with duct firing, operating in combined cycle mode and controlled by Selective Catalytic Reduction (SCR)	OAC rule 3745-31-05(A)(3) (PTI #06-6792 as issued 8/14/2003)	<p>EMISSION LIMITATIONS WITHOUT DUCT BURNER FIRING</p> <p>Nitrogen oxides (NOx) emissions shall not exceed 3.5 ppmvd at 15% oxygen based on a 3-hour block averaging period and 24.7 lbs/hr.</p> <p>Particulate emissions (PE) shall not exceed 19.0 lbs/hr.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 11.2 lbs/hr.</p> <p>Carbon monoxide (CO) emissions shall not exceed 10 ppmvd at 15% oxygen based on a 24-hour block averaging period and 43.0 lbs/hr.</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 3.0 lbs/hr.</p> <p>Ammonia (NH₃) emissions shall not exceed 26.6 lbs/hr.</p> <p>Formaldehyde emissions shall not exceed 0.8 lb/hr.</p> <p>Sulfuric acid emissions shall not exceed 1.7 lbs/hr.</p> <p>Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.</p> <p>See A.II.1 below.</p>

Facility Name: **Duke Energy Washington County**

Facility ID: **06-84-00-0212**

Emissions Unit: **CT #2 (P002)**

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

EMISSION LIMITATIONS WITH
DUCT BURNER FIRING (limited to
4,500 hours per year)

NOx emissions shall not exceed 3.5
ppmvd at 15% oxygen based on a
3-hour block averaging period and
32.3 lbs/hr.

PE shall not exceed 28.0 lbs/hr.

SO2 emissions shall not exceed
14.5 lbs/hr.

CO emissions shall not exceed 14
ppmvd at 15% oxygen based on a
24-hour block averaging period and
78.0 lbs/hr.

VOC emissions shall not exceed
19.6 lbs/hr.

NH3 emissions shall not exceed
34.6 lbs/hr.

Formaldehyde emissions shall not
exceed 0.82 lb/hr.

Sulfuric acid emissions shall not
exceed 2.2 lbs/hr.

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

See A.II.1 and A.II.3 below.

TOTAL ANNUAL EMISSIONS
(including 4,260 hours per year
without duct burners firing, 4,500
hours per year with duct burners
firing, start-ups, and shutdowns)

NOx emissions shall not exceed
157.5 tons/yr.

PE shall not exceed 103.5 tons/yr.

SO2 emissions shall not exceed
56.5 tons/yr.

CO emissions shall not exceed
453.7 tons/yr. CO emissions during
steady-state operation (Mode 6)
shall not exceed 267.1 tons/yr
(excludes start-up and shutdown
emissions).

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
		VOC emissions shall not exceed 63.1 tons/yr.
		NH3 emissions shall not exceed 134.5 tons/yr.
		Formaldehyde emissions shall not exceed 3.6 tons/yr.
		Sulfuric acid emissions shall not exceed 8.6 tons/yr.
		The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subparts Da and GG, and OAC rules 3745-31-10 through 3745-31-20.
	OAC rules 3745-31-10 through 3745-31-20	NOx emissions shall not exceed 157.5 tons per rolling, 12-month period, including start-up and shutdown emissions.
		SO2 emissions shall not exceed 56.5 tons per rolling, 12-month period.
		PE shall not exceed 103.5 tons per rolling, 12-month period.
		CO emissions shall not exceed 453.7 tons per rolling, 12-month period, including start-up and shutdown emissions. CO emissions during steady-state operation (Mode 6) shall not exceed 267.1 tons per rolling, 12-month period (excludes start-up and shutdown emissions).
		VOC emissions shall not exceed 63.1 tons per rolling, 12-month period, including start-up and shutdown emissions.
	40 CFR Part 60, Subpart Da OAC rule 3745-18-06(F) OAC rule 3745-17-11(B)(4) OAC rule 3745-17-07(A)	See A.I.2.a below.
	40 CFR Part 60, Subpart GG	See A.I.2.b below.
	40 CFR Part 75 OAC Chapter 3745-103	See A.I.2.c below.
	OAC rule 3745-21-08(B)	See A.I.2.d below.
	OAC rule 3745-23-06(B)	See A.I.2.e below.

2. Additional Terms and Conditions

- 2.a** The emission limitations specified in these applicable rules are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
- 2.b** The emission limitations specified in this applicable rule are equivalent to or less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3). Except as provided for in the terms and conditions in this permit, the permittee is not exempt from meeting any additional requirements of 40 CFR Part 60, Subpart GG.
- 2.c** If the permittee is subject to the requirements of OAC Chapter 3745-103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
- 2.d** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-6792.

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.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 06-6792.

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 #06-6792)

II. Operational Restrictions (continued)

2. Start-up 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 term A.I.1). The continuous emissions monitoring system will indicate and record the combustion turbine operational mode, including when the emissions unit is shut down and when operating in start-up and shutdown modes. This system will be used to demonstrate compliance with the NOx and CO emission limitations during steady-state operation (Mode 6) and start-up and shutdown.

Start-ups 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.

The maximum emissions rate during each start-up and shutdown of this emissions unit shall be limited to the following:

Pollutant	Maximum Emissions Rate (lbs/hr)
NOx	400
CO	1658
VOC	94

Compliance with the above CO and NOx start-up and shutdown emission limitations shall be demonstrated using the continuous emissions monitoring system, based on a 1-hour block average. Compliance with the VOC start-up and shutdown limitation shall be demonstrated based upon the record keeping required in section A.III of this permit.

(Authority for term: PTI #06-6792)

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

(Authority for term: PTI #06-6792)

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 NO_x emissions, in tons, for all start-up/shutdown cycles based on the data collected and maintained in the Data Acquisition Handling System (DAHS), including data generated pursuant to the approved data substitution protocol;
 - i. the CO emissions, in tons, for all start-up/shutdown cycles based on the data collected and maintained in the DAHS, including data generated pursuant to the approved data substitution protocol;
 - j. the VOC emissions, in tons, for all start-up/shutdown cycles based on the permittee-supplied emission factor of 94 lbs/hr;
 - k. the total NO_x emissions, in tons, including start-up/shutdown emissions;
 - l. the CO emissions during steady-state operation (Mode 6), in tons;
 - m. the total CO emissions, in tons, including start-up/shutdown emissions;
 - n. the total VOC emissions, in tons, not including start-up/shutdown emissions;
 - o. the total VOC emissions, in tons, including start-up/shutdown emissions (i.e., j+n);
 - p. the total PE and SO₂, NH₃, formaldehyde, and sulfuric acid emissions, in pounds;
 - q. the rolling, 12-month summation of the NO_x emissions, in tons, including start-up/shutdown emissions;
 - r. the rolling, 12-month summation of the steady-state (Mode 6) CO emissions, in tons;
 - s. the rolling, 12-month summation of the total CO emissions, in tons, including start-up/shutdown emissions;
 - t. the rolling, 12-month summation of the VOC emissions, in tons, including start-up/shutdown emissions; and
 - u. the rolling, 12-month summations of the SO₂ emissions and PE, in tons.

(Authority for term: PTI #06-6792)

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

2. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard. Such continuous monitoring and recording equipment shall comply with the requirements of the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous NO_x monitoring system including, but not limited to, parts per million NO_x on an instantaneous (one-minute) basis, emissions of NO_x in units of the applicable standard in the appropriate averaging period during Mode 6 operation (i.e., ppmvd at 15% oxygen based on a 3-hour block average period and lbs/hr), start-up and shutdown NO_x emissions (i.e., lbs per start-up and shutdown), results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

(Authority for term: PTI #06-6792)

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

The permittee shall maintain records of all data obtained by the continuous CO monitoring system including, but not limited to, parts per million CO on an instantaneous (one minute) basis, emissions of CO in units of the applicable standard in the appropriate averaging period during Mode 6 operation (i.e., ppmvd at 15% oxygen based on a 24-hour block average period and lbs/hr), start-up and shutdown CO emissions (i.e., lbs per start-up and shutdown), results of daily zero/span calibration checks, and magnitudes of manual calibration adjustments.

(Authority for term: PTI #06-6792)

4. The permittee shall operate and maintain equipment to continuously monitor and record O₂ emissions from this emissions unit in percent O₂. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

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

(Authority for term: PTI #06-6792)

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

(Authority for term: PTI #06-6792)

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

(Authority for term: PTI #06-6792)

7. The permittee shall determine the hourly heat input rate to the combustion turbine and duct burner from the fuel flow rate as determined pursuant to term A.III.5 and the fuel gross calorific value as determined pursuant to term 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 #06-6792)

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

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 #06-6792)

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 #06-6792)

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 that show that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet;
 - c. all records that show that the start-up duration exceeded 250 minutes;
 - d. all records that show that the shutdown duration exceeded 120 minutes;
 - e. all records that show that the total number of start-up/shutdown cycles exceeded 260;
 - f. all exceedances of the NO_x, CO, and/or VOC start-up/shutdown emission limitations; and
 - g. all exceedances of the rolling, 12-month NO_x, CO, VOC, SO₂, and/or PE emission limitations.

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

(Authority for term: PTI #06-6792)

3. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the applicable limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the approved data substitution protocol.

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

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

(Authority for term: PTI #06-6792)

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any) of all instances of CO values in excess of any applicable limitation(s) specified in the terms and conditions of this permit. These reports shall also contain the total CO emissions for the calendar quarter (in tons), including all data collected during start-up and shutdown periods and all data generated pursuant to the approved data substitution protocol.

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

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

(Authority for term: PTI #06-6792)

5. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting all instances of continuous O2 monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall be included in the quarterly report. These quarterly reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

(Authority for term: PTI #06-6792)

6. The permittee shall submit annual reports that specify the total PE and NO_x, CO, SO₂, VOC, NH₃, formaldehyde, and sulfuric acid 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 #06-6792)

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:

NO_x emissions shall not exceed 3.5 ppmvd at 15% oxygen based on a 3-hour block average period, 24.7 lbs/hr without duct burner firing, 32.3 lbs/hr with duct burner firing, and 157.5 tons/yr, including start-up 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, 2002. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including start-up and shutdown emissions, shall be demonstrated based upon the continuous NO_x and oxygen monitoring systems data and the records required pursuant to this permit. If required, the permittee shall demonstrate compliance with the allowable outlet concentration and the hourly emission limitations through emission tests 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 #06-6792)

1.b Emission Limitations:

PE shall not exceed 19.0 lbs/hr without duct burner firing, 28.0 lbs/hr with duct burner firing, and 103.5 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific PE emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5.

(Authority for term: PTI #06-6792)

1.c Emission Limitations:

SO₂ emissions shall not exceed 11.2 lbs/hr without duct burner firing, 14.5 lbs/hr with duct burner firing, and 56.5 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied SO₂ emission factor (0.0057 lb SO₂/MMBtu). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 6.

(Authority for term: PTI #06-6792)

V. Testing Requirements (continued)

1.d Emission Limitations:

VOC emissions shall not exceed 3.0 lbs/hr without duct burner firing, 19.6 lbs/hr with duct burner firing, and 63.1 tons/yr, including start-up and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific VOC emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 25.

(Authority for term: PTI #06-6792)

1.e Emission Limitations:

CO emissions shall not exceed 10 ppmvd at 15% oxygen without duct burner firing based on a 24-hour block average period, 14 ppmvd at 15% oxygen with duct burner firing based on a 24-hour block average period, 43.0 lbs/hr without duct burner firing, 78.0 lbs/hr with duct burner firing, 267.1 tons/yr during steady-state (Mode 6) operation (excludes start-up and shutdown emissions) and 453.7 tons/yr, including start-up and shutdown emissions.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentrations and the lbs/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with these emission limitations during Mode 6 operation, as well as the annual emission limitations, including start-up and shutdown emissions, shall be demonstrated based upon the continuous CO and oxygen monitoring systems data and the records required pursuant to this permit. If required, the permittee shall demonstrate compliance with the allowable outlet concentrations and the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 10.

(Authority for term: PTI #06-6792)

1.f Emission Limitations:

NH₃ emissions shall not exceed 26.6 lbs/hr without duct burner firing, 34.6 lbs/hr with duct burner firing, and 134.5 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied NH₃ emission factor (0.0136 lb NH₃/MMBtu). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

(Authority for term: PTI #06-6792)

V. Testing Requirements (continued)

1.g Emission Limitations:

Formaldehyde emissions shall not exceed 0.8 lb/hr without duct burner firing, 0.82 lb/hr with duct burner firing, and 3.6 tons/yr.

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations was demonstrated through emission testing performed in July, 2002. Ongoing compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the emissions unit-specific formaldehyde emission factors established during the emission testing that demonstrated that the emissions unit was in compliance. Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with SW-846 Method 0011.

(Authority for term: PTI #06-6792)

1.h Emission Limitations:

Sulfuric acid emissions shall not exceed 1.7 lbs/hr without duct burner firing, 2.2 lbs/hr with duct burner firing, and 8.6 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section A.III and the permittee-supplied sulfuric acid emission factor (0.0009 lb sulfuric acid/MMBtu). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section A.III. If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4, and 8.

(Authority for term: PTI #06-6792)

1.i Emission Limitations:

Visible particulate emissions from any stack 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 emissions observations performed in July, 2002. If required, compliance with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI #06-6792)

VI. Miscellaneous Requirements

1. In accordance with good engineering practices, the SCR unit on this emissions unit 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 #06-6792)

Facility Name: **Duke Energy Washington County**

Facility ID: **06-84-00-0212**

Emissions Unit: **CT #2 (P002)**

VI. Miscellaneous Requirements (continued)

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

(Authority for term: PTI #06-6792)

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
170 MW GE 7FA, natural gas-fired, dry low NOx (DLN) combustion turbine 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

- The permit to install for this emissions unit (P002) was evaluated based on actual materials (typically coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde
 TLV (ug/m3): 273 (Converted from the STEL)
 Maximum Hourly Emission Rate (lbs/hr): 1.64*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 1.04
 MAGLC (ug/m3): 6.5

Pollutant: Sulfuric Acid
 TLV (ug/m3): 1000
 Maximum Hourly Emission Rate (lbs/hr): 4.4*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 4.07
 MAGLC (ug/m3): 23.8

Pollutant: Ammonia
 TLV (ug/m3): 17000
 Maximum Hourly Emission Rate (lbs/hr): 69.2*
 Predicted 1-Hour Maximum Ground-Level Concentration (ug/m3): 21.5
 MAGLC (ug/m3): 404.8

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

(Authority for term: PTI #06-6792)

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

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 with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value specified in the above table;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

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

(Authority for term: PTI #06-6792)

3. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy":
- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

(Authority for term: PTI #06-6792)

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Main Cooling Tower (P003)
Activity Description: 7 Cell Mechanical Draft Cooling Tower

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
7 Cell Mechanical Draft Cooling Tower	OAC rule 3745-31-05(A)(3) (PTI #06-6792 as issued 8/14/2003)	Particulate emissions (PE) shall not exceed 2.08 lbs/hr and 9.1 tons/yr. See A.II.1 below. The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A) and 3745-31-10 through 3745-31-20.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20 percent opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-11	See A.I.2.a below.
	OAC rules 3745-31-10 through 3745-31-20	PE shall not exceed 9.1 tons per rolling, 12-month period.

2. Additional Terms and Conditions

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

II. Operational Restrictions

- The permittee shall maintain an average total dissolved solids (TDS) content of 4,000 ppm or less in the circulating cooling water.

(Authority for term: PTI #06-6792)

III. Monitoring and/or Record Keeping Requirements

- The permittee shall monitor the TDS content of the circulating cooling water on a monthly basis.

(Authority for term: PTI #06-6792)

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

2. The permittee shall maintain monthly records of the following information for this emissions unit:
 - a. the monthly TDS content of the circulating cooling water, in ppm; and
 - b. the rolling, 12-month average TDS content of the circulating cooling water, in ppm.

(Authority for term: PTI #06-6792)

3. The permittee shall maintain annual records of the hours of operation of this emissions unit.

(Authority for term: PTI #06-6792)

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify all exceedances of the average TDS content limitation. The deviation reports shall be submitted in accordance with the requirements specified in Part I - General Term and Condition A.1.c.

(Authority for term: PTI #06-6792)

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 Limitations:

PE shall not exceed 2.08 lbs/hr and 9.1 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitation shall be demonstrated by multiplying the drift loss factor supplied by the permittee (50.0 lbs/million gallons water flow based on 0.0006 percent drift) by the maximum circulating water flow rate (10.38 million gallons per hour) and by the average total dissolved solids content (ppm) of the cooling water and dividing by 1,000,000 (ppm). Compliance with the annual emission limitation shall be determined by multiplying the hourly emission rate by the annual operating hours and dividing by 2,000 lbs/ton.

If required, the permittee shall submit a testing proposal which will demonstrate that the maximum drift loss does not exceed 0.0006 percent.

(Authority for term: PTI #06-6792)

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 with this emission limitation shall be demonstrated through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(Authority for term: PTI #06-6792)

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.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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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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