



2/6/2015

Certified Mail

Mr. Robert Jessee  
 AEP Generating Resources Inc., - Waterford Plant  
 201 Righteous Ridge Road  
 Waterford, OH 45786

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
 Facility ID: 0684000213  
 Permit Number: P0117276  
 Permit Type: Administrative Modification  
 County: Washington

No	TOXIC REVIEW
Yes	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
Yes	CEMS
No	MACT/GACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**

**How to appeal this permit**

The issuance of this PTI is a final action of the Director 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. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission  
 77 South High Street, 17th Floor  
 Columbus, OH 43215

## **How to save money, reduce pollution and reduce energy consumption**

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 Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: [www.ohioairquality.org/clean\\_air](http://www.ohioairquality.org/clean_air)

## **How to give us feedback on your permitting experience**

Please complete a survey at [www.epa.ohio.gov/survey.aspx](http://www.epa.ohio.gov/survey.aspx) and give us feedback on your permitting experience. We value your opinion.

## **How to get an electronic copy of your permit**

This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, [www.epa.ohio.gov/dapc](http://www.epa.ohio.gov/dapc) by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

If you have any questions, please contact Ohio EPA DAPC, Southeast District Office at (740)3858501 or the Office of Compliance Assistance and Pollution Prevention at (614)644-3469.

Sincerely,



Erica R. Engel-Ishida, Manager  
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
Ohio EPA-SEDO; Pennsylvania; West Virginia



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install**

for

**AEP Generating Resources Inc., - Waterford Plant**

Facility ID:	0684000213
Permit Number:	P0117276
Permit Type:	Administrative Modification
Issued:	2/6/2015
Effective:	2/6/2015





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
AEP Generating Resources Inc., - Waterford Plant

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## Authorization

Facility ID: 0684000213  
Facility Description: Natural gas fired simple/combined cycle power plant.  
Application Number(s): M0002884  
Permit Number: P0117276  
Permit Description: Administrative permit modification to correctly specify the heat input capacity rating for the natural gas-fired combustion turbine group (P001-P003) and changes to start-up and shut down limitations.  
Permit Type: Administrative Modification  
Permit Fee: \$1,800.00  
Issue Date: 2/6/2015  
Effective Date: 2/6/2015

This document constitutes issuance to:

AEP Generating Resources Inc., - Waterford Plant  
201 Righteous Ridge Road  
Waterford, OH 45786

of a Permit-to-Install for the emissions unit(s) identified on the following page.

Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

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

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

  
Craig W. Butler  
Director



## Authorization (continued)

Permit Number: P0117276  
 Permit Description: Administrative permit modification to correctly specify the heat input capacity rating for the natural gas-fired combustion turbine group (P001-P003) and changes to start-up and shut down limitations.

Permits for the following Emissions Unit(s) or groups of Emissions Units are in this document as indicated below:

- |                                   |                  |
|-----------------------------------|------------------|
| <b>Emissions Unit ID:</b>         | <b>B001</b>      |
| Company Equipment ID:             | Auxiliary Boiler |
| Superseded Permit Number:         | 06-06739         |
| General Permit Category and Type: | Not Applicable   |
| <b>Emissions Unit ID:</b>         | <b>P004</b>      |
| Company Equipment ID:             | Cooling Tower    |
| Superseded Permit Number:         | 06-06739         |
| General Permit Category and Type: | Not Applicable   |

**Group Name: Natural Gas Combustion Turbines**

<b>Emissions Unit ID:</b>	<b>P001</b>
Company Equipment ID:	CT#1
Superseded Permit Number:	06-06739
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P002</b>
Company Equipment ID:	CT#2
Superseded Permit Number:	06-06739
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>P003</b>
Company Equipment ID:	CT#3
Superseded Permit Number:	06-06739
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
AEP Generating Resources Inc., - Waterford Plant  
**Permit Number:** P0117276  
**Facility ID:** 0684000213  
**Effective Date:** 2/6/2015

## **A. Standard Terms and Conditions**



## **1. Federally Enforceable Standard Terms and Conditions**

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
  - (1) Standard Term and Condition A.2.a), Severability Clause
  - (2) Standard Term and Condition A.3.c) through A. 3.e) General Requirements
  - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
  - (4) Standard Term and Condition A.9., Reporting Requirements
  - (5) Standard Term and Condition A.10., Applicability
  - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
  - (7) Standard Term and Condition A.14., Public Disclosure
  - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
  - (9) Standard Term and Condition A.16., Fees
  - (10) Standard Term and Condition A.17., Permit Transfers

## **2. Severability Clause**

- a) 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.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they 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 and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

## **3. General Requirements**

- a) 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 re-issuance, or modification.



- 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, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying 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.

#### **4. 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, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
  - (1) The date, place (as defined in the permit), and time of sampling or measurements.
  - (2) The date(s) analyses were performed.
  - (3) The company or entity that performed the analyses.
  - (4) The analytical techniques or methods used.
  - (5) The results of such analyses.
  - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
  - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.



- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Southeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
  - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Southeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
  - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

## 5. Scheduled Maintenance/Malfunction Reporting

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

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

## 6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted



local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
  - (1) 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.
  - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
  - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
  - (4) 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 Ohio EPA DAPC, Southeast District Office 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:
  - (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
  - (2) 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.

## **7. Best Available Technology**

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.



**8. 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.

**9. Reporting Requirements**

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Southeast District Office.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Ohio EPA DAPC, Southeast District Office. 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, 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.)

**10. Applicability**

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

**11. Construction of New Sources(s) and Authorization to Install**

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the



Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit 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) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit 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). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

## **12. Permit-To-Operate Application**

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.



**13. Construction Compliance Certification**

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

**14. Public Disclosure**

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

**15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations**

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 by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

**16. Fees**

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

**17. Permit Transfers**

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

**18. Risk Management Plans**

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

**19. 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.



**Final Permit-to-Install**  
AEP Generating Resources Inc., - Waterford Plant  
**Permit Number:** P0117276  
**Facility ID:** 0684000213  
**Effective Date:** 2/6/2015

## **B. Facility-Wide Terms and Conditions**



1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:
  - a) None.
2. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart GG: P001, P002 and P003. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District Office or local air agency.
3. The following emissions units contained in this permit are subject to 40 CFR Part 60, Subpart Da: P001, P002 and P003. The complete NSPS requirements may be accessed via the internet from the Electronic Code of Federal Regulations (e-CFR) website <http://ecfr.gpoaccess.gov> or by contacting the appropriate Ohio EPA District Office or local air agency.
4. The stationary combustion turbines identified in Section C. of this permit (emissions units P001 through P003) are not subject to the requirements of 40 CFR Part 63, Subpart YYYY (National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines) because they are not located at a major source of hazardous air pollutant emissions.

[*Authority for term:* OAC rule 3745-77-07(F)(2)]

5. This facility is subject to the applicable requirements specified in OAC Chapter 3745-25. In accordance with Ohio EPA Engineering Guide #64, the emission control action programs, as specified in OAC rule 3745-25-03, shall be developed and submitted within 60 days after receiving notification from the Ohio EPA.

[*Authority for term:* OAC rule 3745-25-03]

6. The following insignificant emissions units located at this facility are exempt from permit requirements because they are not subject to any applicable requirements (as defined in OAC rule 3745-77-01(H)) or because they meet the “de minimis” criteria established in OAC rule 3745-15-05:

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

**EU ID**

- P008 Roadways/parking areas (OAC rule 3745-15-05) (OAC rule 3745-15-05)
- P010 Two-cell blowdown cooling tower (OAC rule 3745-15-05) (OAC rule 3745-15-05)

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 a permit to install for the emissions unit.

7. The permittee shall ensure that any CAIR NOx, SO2, or NOx ozone season units complies with the requirements of OAC 3745-109, which includes submitting timely permit applications. The permittee shall ensure that the affected emissions units comply with those requirements as outlined in the permit application submitted as required by OAC rules 3745-109-03, 109-10 and 109-16 for the affected emissions units.



The permittee shall also comply with any subsequent federally mandated programs that may replace the CAIR program affecting electric generating facilities.

Note: Ohio EPA DAPC has completed proposed rule amendments for OAC chapter 3745-14, specifically, OAC rule 3745-14-01 and OAC rule 3745-14-06, which facilitated the transition of the affected units from OAC chapter 3745-14 into the federal Clean Air Interstate Rule (CAIR) program which began with the 2009 control periods. This began the process of “sunsetting” the parts of OAC chapter 3745-14 which were no longer needed as a result of Ohio’s CAIR rules (OAC chapter 3745-109).

On July 6, 2010, US EPA announced the proposed CAIR replacement rule, the “Transport Rule” as required by the original court vacatur of the federal CAIR program in July 2008. The current time frame for the requirements of this program, as far as new state emission budgets, was to begin with the 2012 control periods, but has now been delayed as a result of a stay of Cross State Air Pollution Rule (CSAPR) by the courts on December 30, 2011 and the subsequent court ruling vacating CSAPR on August 21, 2012.. The CAIR allowances for affected units and requirements of the CAIR will continue for the 2012 control periods and pending the promulgation of a valid replacement.

*[Authority for term: OAC rules 3745-109 and 3745-77-07(A)(5)]*

- 8. The following insignificant emissions units at this facility must comply with all applicable State and federal regulations, as well as any emissions limitations and/or control requirements contained within a permit-to-install for that emissions unit. The insignificant emissions units listed below are subject to one or more applicable requirements contained in a permit-by-rule, permit-to-install or in the federally-approved versions of OAC Chapters 3745-17, 3745-18, and/or 3745-21.

<b>EU ID</b>	<b>Operations, Property and/or Equipment Description</b>
P006	1502 hp/1000 kW Emergency Diesel Fuel Fired Generator (PBR11159)
P007	350 kW Emergency Diesel Fuel fired Water Pump (PBR11160)
P009	9.3 MMBtu/hr gas heater (OAC rule 3745-17)



**Final Permit-to-Install**  
AEP Generating Resources Inc., - Waterford Plant  
**Permit Number:** P0117276  
**Facility ID:** 0684000213  
**Effective Date:** 2/6/2015

## **C. Emissions Unit Terms and Conditions**



**1. B001, Auxiliary Boiler**

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

Natural Gas Fired Boiler, nominally rated at 85.2 MMBtu/hr

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) None.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-31-05(A)(3)	<p>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.</p> <p>Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 0.036 lb/MMBtu actual heat input, 3.07 lbs/hr, and 13.4 tons per year.</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 0.000584 lb/MMBtu actual heat input, 0.050 lb/hr, and 0.22 ton per year.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.074 lb/MMBtu actual heat input, 6.30 lbs/hr, and 27.6 tons per year.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 0.0041 lb/MMBtu actual heat input, 0.35 lb/hr, and 1.53 tons per year.</p> <p>Particulate emissions (PE) shall not exceed 0.005 lb/MMBtu actual heat input, 0.43 lb/hr, and 1.87 tons per</p>



		year.
b.	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).
c.	OAC rule 3745-17-07(A)	Visible particulate emissions shall not exceed 20% opacity as a 6-minute average, except as provided by rule.
d.	OAC rules 3745-31-10 through 3745-31-20	<p>NO<sub>x</sub> emissions shall not exceed 13.4 tons per rolling 12-month period.</p> <p>SO<sub>2</sub> emissions shall not exceed 0.22 ton per rolling 12-month period.</p> <p>PE shall not exceed 1.87 tons per rolling 12-month period.</p> <p>CO emissions shall not exceed 27.6 tons per rolling 12-month period.</p> <p>VOC emissions shall not exceed 1.53 tons per rolling 12-month period.</p>

(2) Additional Terms and Conditions

a. None.

c) Operational Restrictions

(1) None.

d) Monitoring and/or Recordkeeping Requirements

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

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

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

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

a. records of the rolling, 12-month summation of fuel heat input (MMBtu); and,



- b. records of the rolling, 12-month summation of the NO<sub>x</sub>, SO<sub>2</sub>, PE, CO, and VOC emission in tons.
- e) Reporting Requirements
- (1) The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
    - a. any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet; and,
    - b. beginning after the first 12 calendar months of operation, all exceedances of the rolling, 12-month emission limitation for NO<sub>x</sub>, SO<sub>2</sub>, PE, CO, and VOC.
- The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (3) This source is subject to the applicable provisions of Subpart Dc of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

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

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and,
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC- Permit Management Unit  
P.O. Box 163669  
Columbus, Ohio 43216-3669



and

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

f) Testing Requirements

(1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

a. Emissions Limitation:

NO<sub>x</sub> emissions shall not exceed 0.036 lb/MMBtu, 3.07 lbs/hr, and 13.4 tons per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the emission factor supplied by the permittee (0.036 lbNO<sub>x</sub> /MMBtu).

Compliance with the lbs/hr emission limitation may be demonstrated by multiplying the permittee-supplied NO<sub>x</sub> emission factor (0.036 lbNO<sub>x</sub> /MMBtu) by the actual fuel heatinput rate (MMBtu/hr).

Compliance with the tons per year emission limitations shall be demonstrated by multiplying the permittee-supplied NO<sub>x</sub> emission factor (0.036 lbNO<sub>x</sub>/MMBtu) or emissions unit specific NO<sub>x</sub> 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/hremission limitations through emission tests performed in accordance with 40 CFR Part60, Appendix A, Methods 1 through 4 and 7.

b. Emissions Limitation:

SO<sub>2</sub> emissions shall not exceed 0.000584 lb/MMBtu, 0.050 lb/hr, and 0.22 ton per year.

Applicable Compliance Method:

Compliance with the lb/MMBtu emission limitation may be demonstrated using the following AP-42 emission factor: 0.000584 lb SO<sub>2</sub> /MMBtu (AP-42, Fifth Edition, Section1.4, Table 1.4-2, 7/98).



Compliance with the lb/hr emission limitation may be demonstrated by multiplying the AP-42 emission factor (0.000584 lb SO<sub>2</sub> /MMBtu) by the actual fuel heat input rate (MMBtu/hr).

Compliance with the tons per year emission limitations shall be demonstrated by multiplying the AP-42 SO<sub>2</sub> emission factor (0.000584 lb SO<sub>2</sub>/MMBtu) or emissions unit specific SO<sub>2</sub> 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 Part60, Appendix A, Methods 1 through 4 and 6.

c. Emissions Limitation:

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

Applicable Compliance Method:

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

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

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

If required, the permittee shall demonstrate compliance with the lb/MMBtu and lbs/hr emission limitations through emission tests performed in accordance with 40 CFR Part60, Appendix A, Methods 1 through 4 and 10.

d. Emissions Limitation:

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

Applicable Compliance Method:

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

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



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

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

e. Emissions Limitation:

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

Applicable Compliance Method:

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

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

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

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

f. Emissions Limitation:

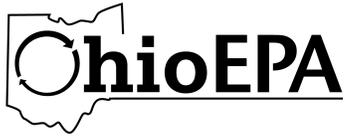
NO<sub>x</sub> emissions shall not exceed 13.4 tons per rolling 12-month period.  
SO<sub>2</sub> emissions shall not exceed 0.22 ton per rolling 12-month period.  
PE emissions shall not exceed 1.87 tons per rolling 12-month period.  
CO emissions shall not exceed 27.6 tons per rolling 12-month period.  
VOC emissions shall not exceed 1.53 tons per rolling 12-month period.

Applicable Compliance Method:

Compliance with the rolling, 12-month emission limitation shall be demonstrated based upon the records required pursuant to section d) above and the associated emission factors specified in section f).

g. Emissions Limitation:

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



Applicable Compliance Method:

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

g) Miscellaneous Requirements

- (1) The terms and conditions for this emissions unit supersede those contained in PTI 06-06739 issued March 20, 2007.



**2. Emissions Unit Group -Natural Gas Combustion Turbines: P001, P002&P003**

EU ID	Operations, Property and/or Equipment Description
P001	GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine, nominally rated at 1930.3 MMBtu/hr at -25°F - Modified
P002	GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine, nominally rated at 1930.3 MMBtu/hr at -25°F - Modified
P003	GE 7FA Natural Gas Fired Dry Low NOx (DLN) Combustion Turbine, nominally rated at 1930.3 MMBtu/hr at -25°F - Modified

- a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.
  - (1) d)(9), f)(3)f., f)(3)g., f)(3)h.
- b) Applicable Emissions Limitations and/or Control Requirements
  - (1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
<b><i>Emission Limitations Without Duct Burner Firing</i></b>		
a.	OAC rule 3745-31-05(A)(3)	<p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 60, Subpart GG, and OAC rules 3745-31-10 through 3745-31-20.</p> <p>Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 25.0 lbs/hr, and 146.9 tons/yr (including annual start-up and shutdown emissions).</p> <p>Particulate emissions (PE) shall not exceed 21.0 lbs/hr and 100.0 tons/yr (including annual start-up and shutdown emissions).</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 12.0 lbs/hr, and 56.6 tons/yr (including annual start-up and shutdown emissions).</p> <p>Carbon monoxide (CO) emissions shall not exceed 9.0 ppmvd, 33.0 lbs/hr, and</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>366.6 tons/yr (including annual start-up and shutdown emissions).</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 3.2 lbs/hr, and 31.8 tons/yr (including annual start-up and shutdown emissions).</p> <p>Ammonia (NH<sub>3</sub>) emissions shall not exceed 26.0 lbs/hr and 123.1 tons/yr (including annual start-up and shutdown emissions).</p> <p>Formaldehyde emissions shall not exceed 0.23 lb/hr and 1.06 tons/yr (including annual start-up and shutdown emissions).</p> <p>Sulfuric acid emissions shall not exceed 0.48 lb/hr and 2.3 tons/yr (including annual start-up and shutdown emissions).</p> <p>Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.</p>
b.	40 CFR Part 60, Subpart GG	See c)(1) and c)(3) below.
c.	OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F)	See b)(2)b. below.  See b)(2)a. below.
d.	OAC rules 3745-31-10 through 3745-31-20	<p>NO<sub>x</sub> emissions shall not exceed 146.9 tons per rolling, 12-month period</p> <p>SO<sub>2</sub> emissions shall not exceed 56.6 tons per rolling, 12-month period.</p> <p>PE emissions shall not exceed 100.0 tons per rolling, 12-month period.</p> <p>CO emissions shall not exceed 366.6 tons per rolling, 12-month period.</p> <p>VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.</p>
<b><i>Emission Limitations With Duct Burner Firing</i></b>		
e.	OAC rule 3745-31-05(A)(3)	The requirements of this rule also include



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>compliance with the requirements of 40 CFR Part 60, Subparts Da and GG, and OAC rules 3745-31-10 through 3745-31-20.</p> <p>Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 3.5 ppmvd at 15% oxygen, 30.0 lbs/hr, and 146.9 tons/yr (including annual start-up and shutdown emissions).</p> <p>Particulate emissions (PE) shall not exceed 25.0 lbs/hr and 100.0 tons/yr (including annual start-up and shutdown emissions).</p> <p>Sulfur dioxide (SO<sub>2</sub>) emissions shall not exceed 14.0 lbs/hr, and 56.6 tons/yr (including annual start-up and shutdown emissions).</p> <p>Carbon monoxide (CO) emissions shall not exceed 15.0 ppmvd, 69.0 lbs/hr, and 366.6 tons/yr (including annual start-up and shutdown emissions).</p> <p>Volatile organic compounds (VOC) emissions shall not exceed 6.8 lbs/hr, and 31.8 tons/yr (including annual start-up and shutdown emissions).</p> <p>Ammonia (NH<sub>3</sub>) emissions shall not exceed 30.6 lbs/hr and 123.1 tons/yr (including annual start-up and shutdown emissions).</p> <p>Formaldehyde emissions shall not exceed 0.26 lb/hr and 1.06 tons/yr (including annual start-up and shutdown emissions).</p> <p>Sulfuric acid emissions shall not exceed 0.56 lb/hr and 2.3 tons/yr (including annual start-up and shutdown emissions).</p> <p>Visible particulate emissions from any stack shall not exceed 10% opacity as a 6-minute average.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
f.	40 CFR Part 60, Subpart GG	See c)(1) and c)(3) below.
g.	40 CFR Part 60, Subpart Da OAC rule 3745-17-07(A) OAC rule 3745-17-11(B)(4) OAC rule 3745-18-06(F)	See b)(2)b. below.  See b)(2)a. below.
h.	OAC rules 3745-31-10 through 3745-31-20	<p>NO<sub>x</sub> emissions shall not exceed 146.9 tons per rolling, 12-month period.</p> <p>SO<sub>2</sub> emissions shall not exceed 56.6 tons per rolling, 12-month period.</p> <p>PE emissions shall not exceed 100.0 tons per rolling, 12-month period.</p> <p>CO emissions shall not exceed 366.6 tons per rolling, 12-month period.</p> <p>VOC emissions shall not exceed 31.8 tons per rolling, 12-month period.</p>
<b>Start-up and Shutdown emission limitations</b>		
i.	OAC rule 3745-31-05(A)(3)	<p>See c)(2) below.</p> <p>Nitrogen oxides (NO<sub>x</sub>) emissions shall not exceed 924 lbs/cycle and 27.4 tons/yr.</p> <p>Carbon monoxide (CO) emissions shall not exceed 2,340 lbs/cycle and 150.1 tons/yr.</p> <p>Volatile organic compound (VOC) emissions shall not exceed 144 lbs/cycle and 10.6 tons/yr.</p>

- (2) Additional Terms and Conditions
- 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).
  - 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.



- c. If the permittee is subject to the requirements of OAC Chapter 103 and 40 CFR Parts 72 and 75 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.
- d. After the NOx continuous emissions monitoring system for this emissions unit is installed and certified, the permittee shall submit excess emissions reports for this emissions unit in accordance with this permit, in lieu of the excess emissions reports required under 40 CFR Part 60.334.

c) Operational Restrictions

- (1) The permittee shall burn only natural gas in this emissions unit. The maximum sulfur content of the natural gas shall not exceed 2 grains per 100 standard cubic feet.
- (2) Start-up shall be defined as the operating period prior to reaching Mode 6Q following the initiation operations and shutdown shall be defined as the operating period following the achievement of Mode 5Q following the initiation of the cessation of operations. Under no circumstances shall start-ups exceed 360 minutes in duration nor shall shutdowns exceed 1 hour in duration. The total of all hot, warm and cold start-ups (as defined below) and shutdowns shall be limited to 286 cycles (each cycle consists of one start-up and one shutdown) per year.

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

Each cycle shall be limited to the following:

<u>Pollutant</u>	<u>Total lbs/Cycle</u>
NO <sub>x</sub>	924
CO	2,340
VOC	144

- (3) The maximum annual fuel heat input of the duct burner shall not exceed 1,440,000 MMBtu per year, based up on a rolling, 12-month summation of the heat input values.

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

Month	Cumulative Fuel Heat Input (MMBtu)
1	267,840
1-2	535,680



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

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

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall install, operate and maintain equipment to continuously monitor and record  $\text{NO}_x$  emissions from this emissions unit in units of the applicable standard. This  $\text{NO}_x$  monitoring equipment must be installed for operation. 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  $\text{NO}_x$  monitoring system including, but not limited to, parts per million  $\text{NO}_x$  on an instantaneous (one-minute) basis, emissions of  $\text{NO}_x$  in units of the applicable standard in the appropriate averaging period (i.e., ppmvd at 15% oxygen and lbs/hr), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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



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

- (3) The permittee shall install, operate and maintain equipment to continuously monitor and record O<sub>2</sub> emissions from this emissions unit in percent O<sub>2</sub>. Such continuous monitoring and recording equipment shall comply with the requirements in the appropriate sections specified in 40 CFR Part 60.13 and 40 CFR Part 75.

The permittee shall maintain records of all data obtained by the continuous O<sub>2</sub> monitoring system including, but not limited to, percent O<sub>2</sub> on an instantaneous (one-minute) basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

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

- (5) 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.

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

- (7) The permittee shall maintain monthly records of the following information for this emissions unit:

- a. The natural gas usage rate, in standard cubic feet.
- b. Hours of operation of the combustion turbine.
- c. Hours of operation of the duct burner.
- d. Monthly fuel heat input (MMBtu) to the combustion turbine.
- e. Monthly fuel heat input (MMBtu) to the duct burner.
- f. During the first 12 calendar months of operation, records of the cumulative fuel heat input to the combustion turbine and the duct burner.
- g. Beginning after the first 12 months of operation, the rolling, 12-month summations of fuel heat inputs to the combustion turbine and the duct burner.



- h. Number of start-ups, type of startup (hot, warm or cold) and the duration, in minutes, of each start-up.
  - i. Number of shutdowns, and the duration, in hours, of each shutdown.
  - j. The total number of start-up/shutdown cycles.
  - k. The NO<sub>x</sub>, CO, and VOC emissions, in pounds, for all start-up/shutdown cycles.
  - l. The total NO<sub>x</sub> emissions, in pounds, including start-up/shutdown emissions.
  - m. The total CO emissions, in pounds, including start-up/shutdown emissions.
  - n. The total VOC emissions, in pounds, including start-up/shutdown emissions.
  - o. The total SO<sub>2</sub>, PE, NH<sub>3</sub>, formaldehyde, and sulfuric acid emissions, in pounds.
  - p. Beginning after the first 12 months of operation, the rolling, 12- month summation of the NO<sub>x</sub> emissions, in tons, including start-up/shutdown emissions.
  - q. Beginning after the first 12 months of operation under, the rolling, 12- month summation of the CO emissions, in tons, including start-up/shutdown emissions.
  - r. Beginning after the first 12 months of operation under, the rolling, 12- month summation of the VOC emissions, in tons, including start-up/shutdown emissions.
  - s. Beginning after the first 12 months of operation under, the rolling, 12- month summations of the SO<sub>2</sub> and PE emissions, in tons.
- (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.
- (9) The permit to install for this emissions unit was evaluated based on actual materials (typically coatings and clean up materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the air permit to install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy (Air Toxic Policy) was applied for each pollutant emitted by this emissions unit using data from the permit to install application and the SCREEN 3.0 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling:

Pollutant: Formaldehyde

TLV: (ug/m<sup>3</sup>): 368 (Converted from the STEL)

Maximum Hourly Emission Rate (lbs/hr): 0.81\*

Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 2.60

MAGLC (ug/m<sup>3</sup>): 8.76

Pollutant: Sulfuric Acid



TLV: (ug/m<sup>3</sup>): 1,000  
Maximum Hourly Emission Rate (lbs/hr): 1.68\*  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 1.74  
MAGLC (ug/m<sup>3</sup>): 23.8

Pollutant: Ammonia  
TLV: (ug/m<sup>3</sup>): 17,413  
Maximum Hourly Emission Rate (lbs/hr): 92\*  
Predicted 1-Hour Maximum Ground-Level Concentration (ug/m<sup>3</sup>): 94.7  
MAGLC (ug/m<sup>3</sup>): 415

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

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

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

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

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



- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
  - b. documentation of its evaluation and determination that the changed emissions unit still satisfied 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.
- e) 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.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify the following:
    - a. During the first 12 months of operation, all exceedances of the maximum allowable cumulative duct burner heat input levels.
    - b. Beginning after the first 12 months of operation, all exceedances of the rolling, 12-month allowable duct burner fuel heat input level.
    - c. Any record which shows that the sulfur content of the natural gas exceeded 2 grains per 100 standard cubic feet.
    - d. Any record which shows that the start-up duration exceeded 360 minutes.
    - e. Any record which shows that the shutdown duration exceeded 1 hour.
    - f. Any record which shows that the total number of start-up/shutdown cycles exceeded 286.
    - g. All exceedances of the NO<sub>x</sub>, CO, and/or VOC start-up/shutdown emission limitations during any cycle.
    - h. Beginning after the first 12 months of operation, all exceedances of the rolling, 12-month NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, and/or PE limitations.

The quarterly deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.

- (3) Pursuant to OAC rule 3745-15-04, ORC sections 3704.03(l) and 3704.031, and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective action taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO<sub>x</sub> emissions for the calendar quarter (in tons).



The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting any continuous NOx 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.

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

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

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

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

- (6) This emissions unit is subject to the applicable provisions of Subpart Da and G of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60. The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

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

- a. construction date (no later than 30 days after such date);
- b. anticipated start-up date (not more than 60 days or less than 30 days prior to such date);
- c. actual start-up date (within 15 days after such date); and,
- d. date of performance testing (if required, at least 30 days prior to testing).

Reports are to be sent to:

Ohio Environmental Protection Agency  
DAPC- Permit Management Unit  
P.O. Box 163669  
Columbus, Ohio 43216-3669

and

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

f) Testing Requirements

- (1) The permittee shall conduct or have conducted, emission testing for this emissions unit in accordance with the following requirements:
- a. The emission testing shall be conducted within 60 days after initiating operation.



- b. The emission testing shall be conducted to demonstrate compliance with the NO<sub>x</sub> and CO outlet concentrations, the mass emission limitations for NO<sub>x</sub>, CO, formaldehyde, VOC, and PE, and the visible particulate emission limitations.
  - c. The following test methods shall be employed to demonstrate compliance with the above emission limitations: for NO<sub>x</sub>, Method 20 of 40 CFR Part 60, Appendix A and the procedures required under 40 CFR Part 60.335; for PE, Method 5 of 40 CFR Part 60, Appendix A; for visible particulate emission limitations, Method 9 of 40 CFR Part 60, Appendix A; for formaldehyde, SW-846 Method 0011; for VOC, Method 25 of 40 CFR Part 60, Appendix A; and for CO, Method 10 of 40 CFR Part 60, Appendix A. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.
  - d. The testing shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by Ohio EPA or local air agency. The emission testing shall be conducted with and without duct burner firing.
  - e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, Southeast District Office. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA, Southeast District Office refusal to accept the results of the emission test(s).
  - f. Personnel from the Ohio EPA, Southeast District Office shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.
  - g. A comprehensive written report on the results of the emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast District Office within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.
- (2) Within 60 days after achieving the maximum production rate at which the emission unit will be operated, but not later than 180 days after initial startup of such emissions unit, the permittee shall conduct certification tests of the continuous NO<sub>x</sub>, CO and O<sub>2</sub> monitoring systems pursuant to ORC Section 3704.03(I), 40 CFR Part 60, Appendix B, Performance Specification 2, 3, 4, 6\*, as applicable, and 40 CFR Part 75, unless an extension is granted by the Ohio EPA. Personnel from the Ohio EPA, Southeast District Office and Ohio EPA, Central Office shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, copies of all test results shall be submitted within 30 days after the test is completed. Copies of the test results



shall be sent to the Ohio EPA, Southeast District Office and Ohio EPA, Central Office. Certification of the continuous NO<sub>x</sub>, CO and O<sub>2</sub> monitoring systems shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of the appropriate Sections of ORC Section 3704.03(l), 40 CFR Part 60, Appendix B, Performance Specification 2, 3, 4 and 6\* and 40 CFR Part 75.

\* The permittee may use certified NO<sub>x</sub> CEMS in conjunction with a fuel flow monitor as described in 40 CFR Part 75, and a certified CO CEMS in conjunction with a fuel flow monitor (in a manner similar to that used for NO<sub>x</sub>) to meet these requirements. The relative accuracy requirements of Performance Specification 6 shall apply in either case.

(3) Compliance with the allowable emission limitations in this permit shall be determined according to the following methods:

a. Emission Limitations:

NO<sub>x</sub> emissions shall not exceed 3.5 ppmv at 15% oxygen, 25.0 lbs/hr without duct burner firing, 30.0 lbs/hr with duct burner firing, and 146.9 tons/yr, which includes 27.4 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentration, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section f)(1). Ongoing compliance with these emission limitations shall be demonstrated based upon the continuous NO<sub>x</sub> and oxygen monitoring systems data required pursuant to section d) above. Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section d) above.

b. Emission Limitations:

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

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section f)(1). Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) above and the permittee-supplied PE emission factors (0.010879 lb of PE/MMBtu without duct burner firing and 0.010916 lb of PE/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) above 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 d) above.



c. Emission Limitations:

SO<sub>2</sub> emissions shall not exceed 12.0 lbs/hr without duct burner firing, 14.0 lbs/hr with duct burner firing, and 56.6 tons/yr.

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) and the permittee-supplied SO<sub>2</sub> emission factors (0.006217 lb of SO<sub>2</sub>/MMBtu without duct burner firing and 0.006113 lb of SO<sub>2</sub>/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section d). If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

d. Emission Limitations:

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

Applicable Compliance Method:

Initial compliance with the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section f)(1). Until the initial emission testing is completed, compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) and the permittee-supplied VOC emission factors (0.001658 lb of VOC/MMBtu without duct burner firing and 0.002969 lb of VOC/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) 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 d).

e. Emission Limitations:

CO emissions shall not exceed 9.0 ppmvd without duct burner firing, 15.0 ppmvd with duct burner firing, 33.0 lbs/hr without duct burner firing, 69.0 lbs/hr with duct burner firing, and 366.6 tons/yr, which includes 150.1 tons/yr for start-ups and shutdowns.

Applicable Compliance Method:

Initial compliance with the allowable outlet concentrations, and the lbs/hr emission limitations shall be demonstrated through emission testing performed in accordance with section f)(1). Ongoing compliance with these emission



limitations shall be demonstrated based upon the continuous CO monitoring system data required pursuant to section d). Compliance with the tons/yr emission limitation, including start-up and shutdown emissions, shall be demonstrated based upon the records required pursuant to section d).

f. Emission Limitation:

NH<sub>3</sub> emissions shall not exceed 26.0 lbs/hr without duct burner firing, 30.6 lbs/hr with duct burner firing, and 123.1 tons/yr.

Applicable Compliance Method:

Compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) and the permittee-supplied NH<sub>3</sub> emission factors (0.013469 lb of NH<sub>3</sub>/MMBtu without duct burner firing and 0.013361 lb of NH<sub>3</sub>/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section d). If required, the permittee shall demonstrate compliance with the hourly emission limitations through emission tests performed in accordance with U.S. EPA-approved methods.

g. Emission Limitations:

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

Applicable Compliance Method:

Initial compliance with the lb/hr emission limitations shall be demonstrated through emission testing performed in accordance with section f)(1). Until the initial emission testing is completed, compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section d) and the permittee-supplied formaldehyde emission factors (0.0001192lb of formaldehyde/MMBtu without duct burner firing and 0.0001135 lb of formaldehyde/MMBtu with duct burner firing). Ongoing compliance with the lbs/hr emission limitations may be demonstrated through the records required pursuant to section d) 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 d).

h. Emission Limitations:

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

Applicable Compliance Method:



Compliance with the lb/hr emission limitations may be demonstrated through the records required pursuant to section d) and the permittee-supplied sulfuric acid emission factors (0.0002487 lb of sulfuric acid/MMBtu without duct burner firing and 0.0002445 lb of sulfuric acid/MMBtu with duct burner firing). Compliance with the tons/yr emission limitation shall be demonstrated based upon the records required pursuant to section d). If required, the permittee shall demonstrate compliance with the hourly emission limitations through emissions tests performed in accordance with U.S. EPA-approved methods.

i. Emission Limitation:

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

Applicable Compliance Method:

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

g) Miscellaneous Requirements

- (1) In accordance with good engineering practices, the SCR unit on this emissions unit shall be installed, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee. The permittee shall maintain on site a copy of the operation and maintenance manual, as provided by the manufacturer.
- (2) Prior to the installation of the continuous NO<sub>x</sub> and CO monitoring systems, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 2, 4 and 6\* [or as described in condition f)(1)] for approval by the Ohio EPA, Central Office.  
  
\*for Performance Specifications 6 see section f)(2).
- (3) Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub>, CO, and O<sub>2</sub> monitoring system designed to ensure continuous valid and representative readings of NO<sub>x</sub>, CO, and O<sub>2</sub> emissions in units of the applicable standard. The plans 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<sub>x</sub>, CO, and O<sub>2</sub> monitoring system must be kept on site and available for inspection during regular office hours.
- (4) The terms and conditions for this emissions unit supersede those contained in PTI 06-06739 issued March 20, 2007.



**3. P004, Cooling Tower**

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

Cooling Tower

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

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

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

(2) Additional Terms and Conditions

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

c) Operational Restrictions

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

d) Monitoring and/or Recordkeeping Requirements

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

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



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

e) Reporting Requirements

- (1) The permittee shall submit deviation reports in accordance with the general terms and conditions of this permit that identify any exceedances of the average total dissolved solids content requirement.
- (2) The permittee shall also submit annual reports that specify the total PE emissions from this emissions unit for the previous calendar year. The annual reports shall be submitted by February 15 of each year.

f) Testing Requirements

- (1) Compliance with the Emissions Limitations and/or Control Requirements specified in section b) of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitations:

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

Applicable Compliance Method:

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

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

- b. Emission Limitation:

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

Applicable Compliance Method:

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



g) Miscellaneous Requirements

- (1) The terms and conditions for this emissions unit supersede those contained in PTI 06-06739 issued March 20, 2007.