



John R. Kasich, Governor
 Mary Taylor, Lt. Governor
 Craig W. Butler, Director

10/18/2016

Mr. John Ridings
 AEP Generation Resources Inc., - Darby Plant
 Darby Plant
 12509 Adkins Road
 Mt. Sterling, OH 43143

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
 Facility ID: 0165000132
 Permit Number: P0121411
 Permit Type: Administrative Modification
 County: Pickaway

Certified Mail

No	TOXIC REVIEW
No	PSD
Yes	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**
- **What should you do if you notice a spill or environmental emergency?**

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

How to give us feedback on your permitting experience

Please complete a survey at 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 by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Central District Office at (614)728-3778 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
Ohio EPA-CDO; Kentucky



Response to Comments

Facility ID:	0165000132
Facility Name:	AEP Generation Resources Inc., - Darby Plant
Facility Description:	Electric services
Facility Address:	12509 Adkins Road Mt. Sterling, OH 43143-9061 Pickaway County
Permit:	P0121411, Permit-To-Install - Administrative Modification
A public notice for the draft permit issuance was published in the Ohio EPA Weekly Review and appeared in the Circleville Herald on 09/15/2016. The comment period ended on 10/15/2016.	
Hearing date (if held)	
Hearing Public Notice Date (if different from draft public notice)	

The following comments were received during the comment period specified. Ohio EPA reviewed and considered all comments received during the public comment period. By law, Ohio EPA has authority to consider specific issues related to protection of the environment and public health. Often, public concerns fall outside the scope of that authority. For example, concerns about zoning issues are addressed at the local level. Ohio EPA may respond to those concerns in this document by identifying another government agency with more direct authority over the issue.

In an effort to help you review this document, the questions are grouped by topic and organized in a consistent format. PDF copies of the original comments in the format submitted are available upon request.

No comments were received.



FINAL

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

Facility ID:	0165000132
Permit Number:	P0121411
Permit Type:	Administrative Modification
Issued:	10/18/2016
Effective:	10/18/2016



Division of Air Pollution Control
Permit-to-Install
for
AEP Generation Resources Inc., - Darby Plant

Table of Contents

Authorization	1
A. Standard Terms and Conditions	3
1. Federally Enforceable Standard Terms and Conditions	4
2. Severability Clause	4
3. General Requirements	4
4. Monitoring and Related Record Keeping and Reporting Requirements.....	5
5. Scheduled Maintenance/Malfunction Reporting	6
6. Compliance Requirements	6
7. Best Available Technology	7
8. Air Pollution Nuisance	8
9. Reporting Requirements	8
10. Applicability	8
11. Construction of New Sources(s) and Authorization to Install	8
12. Permit-To-Operate Application	9
13. Construction Compliance Certification	10
14. Public Disclosure	10
15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations	10
16. Fees.....	10
17. Permit Transfers	10
18. Risk Management Plans	10
19. Title IV Provisions	10
B. Facility-Wide Terms and Conditions.....	11
C. Emissions Unit Terms and Conditions	13
1. Emissions Unit Group -Combustion Turbines: P001, P002, P003, P004, P005, P006.....	14



Authorization

Facility ID: 0165000132
Facility Description: Electric services
Application Number(s): M0004101
Permit Number: P0121411
Permit Description: Administrative modification to clarify the low mass emitter provisions in the permit and add operational flexibility for the combustion of either natural gas or number two fuel oil.
Permit Type: Administrative Modification
Permit Fee: \$1,500.00
Issue Date: 10/18/2016
Effective Date: 10/18/2016

This document constitutes issuance to:

AEP Generation Resources Inc., - Darby Plant
12509 Adkins Road
Mt. Sterling, OH 43143-9061

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

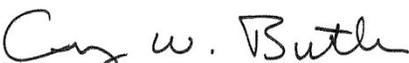
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Central District Office
50 West Town Street, 6th Floor
P.O. Box 1049
Columbus, OH 43216-1049
(614)728-3778

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: P0121411

Permit Description: Administrative modification to clarify the low mass emitter provisions in the permit and add operational flexibility for the combustion of either natural gas or number two fuel oil.

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

Group Name: Combustion Turbines

Emissions Unit ID:	P001
Company Equipment ID:	CT1 - Combustion Turbine No. 1
Superseded Permit Number:	P0109143
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P002
Company Equipment ID:	CT2 - Combustion Turbine No. 2
Superseded Permit Number:	P0109143
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P003
Company Equipment ID:	CT3 - Combustion Turbine No. 3
Superseded Permit Number:	P0109143
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P004
Company Equipment ID:	CT4 - Combustion Turbine No. 4
Superseded Permit Number:	P0109143
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P005
Company Equipment ID:	CT5 - Combustion Turbine No. 5
Superseded Permit Number:	P0109143
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	P006
Company Equipment ID:	CT6 - Combustion Turbine No. 6
Superseded Permit Number:	P0109143
General Permit Category and Type:	Not Applicable



Final Permit-to-Install
AEP Generation Resources Inc., - Darby Plant
Permit Number: P0121411
Facility ID: 0165000132
Effective Date: 10/18/2016

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, Central 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, Central 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, Central 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, Central 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, Central 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, Central 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, Central 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 Generation Resources Inc., - Darby Plant
Permit Number: P0121411
Facility ID: 0165000132
Effective Date: 10/18/2016

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 permittee shall ensure that any emissions unit(s) subject to the Clean Air Interstate Rule (CAIR) complies/comply with the requirements of the Ohio Administrative Code (OAC) Chapter 3745-109, which includes submitting timely permit applications.

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 April 29, 2014, the United States Supreme Court upheld EPA’s Cross –State Air Pollution Rule (CSAPR) commonly known as the “Transport Rule” and reversed the 2012 decision by the U.S. Court of Appeals for the District of Columbia invalidating the rules. At this time, CAIR remains in place and no immediate action from States or affected sources is expected. The CAIR allowances for affected units and requirements of the CAIR rule will continue pending further guidance from U.S. EPA on implementing CAIR.



Final Permit-to-Install
AEP Generation Resources Inc., - Darby Plant
Permit Number: P0121411
Facility ID: 0165000132
Effective Date: 10/18/2016

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group -Combustion Turbines: P001, P002, P003, P004, P005, P006

EU ID	Operations, Property and/or Equipment Description
P001	Natural Gas or number two fuel oil-fired, simple cycle, combustion turbine having a nominal capacity of 1,115.2 MMBTU/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT1 - Combustion Turbine No.1; *Modified
P002	Natural Gas or number two fuel oil-fired, simple cycle, combustion turbine having a nominal capacity of 1,115.2 MMBTU/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT2 - Combustion Turbine No.2; *Modified
P003	Natural Gas or number two fuel oil-fired, simple cycle, combustion turbine having a nominal capacity of 1,115.2 MMBTU/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT3 - Combustion Turbine No.3; *Modified
P004	Natural Gas or number two fuel oil-fired, simple cycle, combustion turbine having a nominal capacity of 1,115.2 MMBTU/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT4 - Combustion Turbine No.4; *Modified
P005	Natural Gas or number two fuel oil-fired, simple cycle, combustion turbine having a nominal capacity of 1,115.2 MMBTU/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT5 - Combustion Turbine No.5; *Modified
P006	Natural Gas or number two fuel oil-fired, simple cycle, combustion turbine having a nominal capacity of 1,115.2 MMBTU/hr (80 MW, nominal), controlled with a dry low NOx combustor; CT6 - Combustion Turbine No.6; *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) 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(D) (Federally enforceable limitations to avoid PSD)	245 tons per year (TPY) nitrogen oxides (NOx) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006. 199.4 TPY carbon monoxide (CO) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>11.7 TPY sulfur dioxide (SO₂) emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>6.1 TPY volatile organic compounds (VOC)* emissions as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>* the permittee has submitted emissions data that supports, for purposes of avoiding both federal 112(g) and state of Ohio OAC rule 3745-31-28 regulations that all Hazardous Air Pollutants (HAPs) are less than VOC emissions.</p> <p>See c)(1)</p>
b.	40 CFR Part 75	<p>See b)(2)i., c)(2), d)(2), d)(3), d)(6), d)(7), d)(8), e)(4) and e)(5) for the specific operational restrictions, monitoring, record keeping, and reporting requirements.</p> <p>See also b)(2)j. for acceptable alternative monitoring procedures allowable pursuant to 40 CFR 75.19.</p>
c	OAC rule 3745-17-11(B)(4)	0.040 lb of particulate emissions per million Btu actual heat input.
d.	OAC rule 3745-31-05(A)(3)	<p>NOx emissions shall not exceed 178.5 pounds per hour at all operating loads and 15 ppmvd at 15% oxygen at full load when firing natural gas, based on a one-hour average as determined through data from the NOx continuous emission monitoring system (CEMs) or alternative monitoring in accordance with b)(2)c. below. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.</p> <p>NOx emissions shall not exceed 269.0 pounds per hour at all operating loads and 42 ppmvd at 15% oxygen at full load</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>when firing number two fuel oil, based on a one-hour average as determined through data from the NOx CEMs or alternative monitoring in accordance with b)(2)c. below. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.</p> <p>245 TPY of NOx emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>CO emissions shall not exceed 301.0 pounds per hour when firing natural gas.</p> <p>CO emissions shall not exceed 1093 pounds per hour when firing number two fuel oil.</p> <p>0.06 pounds of SO₂ emissions per million Btu actual heat input</p> <p>The permittee shall combust number two fuel oil that contains equal to or less than 0.05 percent, by weight, sulfur.</p> <p>2.0 pounds per hour of SO₂ emissions when firing natural gas.</p> <p>61.0 pounds per hour of SO₂ emissions when firing number two fuel oil.</p> <p>2.0 pounds per hour of VOC* emissions when firing natural gas.</p> <p>5.5 pounds per hour of VOC* emissions when firing number two fuel oil.</p> <p>10.0 pounds per hour of OC emissions when firing natural gas.</p> <p>11.0 pounds per hour of OC emissions when firing number two fuel oil.</p> <p>30.4 TPY OC emissions combined from emissions units P001, P002, P003, P004,</p>

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>P005, and P006.</p> <p>5.0 pounds per hour of particulate emissions when firing natural gas.</p> <p>10.0 pounds per hour of particulate emissions when firing number two fuel oil.</p> <p>15.8 TPY of particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4).</p> <p>See b)(2)j.</p>
e.	<p>OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG</p>	<p>The emissions limitations from these rules are less stringent than the emission limitations established pursuant to OAC rule 3745-31-05(A)(3) and 3745-31-05(D).</p>

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of dry low NOx combustor to reduce nitrogen oxides emissions to 15 ppmvd (at full load) when burning natural gas and use of water injection to reduce nitrogen oxides emissions to 42 ppmvd (at full load) when burning number two fuel oil, and the 245 TPY NOx allowable.
- b. In accordance with OAC rules 3745-31-05(A)(3), the permittee shall use natural gas as the primary fuel and number two fuel oil with a maximum sulfur content of 0.05 percent by weight, as the back-up fuel.
- c. In lieu of the requirements of 40 CFR Part 60.334(a) (Subpart GG) to install and operate a continuous monitoring system to monitor the ratio of water to fuel being fired in each turbine, the permittee shall install and operate NOx continuous emissions monitoring system or use an excepted monitoring system that meets the requirements of 40 CFR 75.19 (Optional NO_x, SO₂ and CO₂ emissions calculation for low mass emissions (LME) units).

- d. In lieu of monitoring the nitrogen content of the natural gas being fired in the turbine as required by 40 CFR 60 Subpart GG (section 60.334(b)), the permittee shall install and operate systems or use an excepted monitoring system that meets the requirements of 40 CFR 75.19 (Optional NO_x, SO₂ and CO₂ emissions calculation for low mass emissions (LME) units) to continuously monitor and record emissions of NO_x from this emissions unit.
 - e. In lieu of the excess emissions reports required under 40 CFR Part 60.334, the permittee shall submit excess emissions reports from this emissions unit in accordance with this permit.
 - f. In lieu of the test methods and procedures required under 40 CFR Part 60.335, the permittee shall follow the testing and Continuous Emissions Monitoring requirements for this emissions unit in accordance with this permit.
 - g. Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to synchronization and shall not exceed a maximum of 30 minutes. Shutdown periods shall not exceed 30 minutes.
 - h. "Full load" shall be defined as all periods when the hourly average electrical output exceeds 72MW.
 - i. In lieu of monitoring the exhaust stack gas flow rate as required by 40 CFR Part 60, Appendix B – Performance Specification 6, the permittee shall use either a certified NO_x continuous emissions monitoring system or an excepted monitoring system that meets the requirements of 40 CFR 75.19 (LME) in conjunction with a fuel flow monitor as described in 40 CFR Part 75; and either a certified CO continuous emissions monitoring system or an excepted monitoring system as described in 40 CFR 75.19 (LME) in a manner similar to that used for NO_x in conjunction with a fuel flow monitor to meet these requirements.
 - j. If this emissions unit meets the requirements of 40 CFR 75.19(a)(1), (a)(2) and (b), the low mass emissions (LME) excepted methodology in 40 CFR.75.19(c) may be used in lieu of continuous emission monitoring systems or, if applicable, in lieu of methods under Appendices D, E, and G to 40 CFR Part 75, for the purpose of determining the unit heat input, NO_x, SO₂, CO₂, mass emissions, and the NO_x emission rate under 40 CFR Part 75. If the permittee of qualifying emissions unit elects to use the LME methodology, it must be used for all parameters that are required to be monitored by the applicable program(s). For example, SO₂, NO_x, CO₂ mass emissions, NO_x emission rate, and Unit Heat Input.
- c) Operational Restrictions
- (1) The maximum natural gas and number two fuel oil usage in emissions units P001, P002, P003, P004, P005, and P006 combined shall be limited by the following formulas for each rolling 12-month period:

245 tons NO_x ≥ Total NO_x from natural gas usage + Total NO_x from number two fuel oil usage;

199.4 tons CO \geq Total CO from natural gas usage + Total CO from number two fuel oil usage;

11.7 tons SO₂ \geq Total SO₂ from natural gas usage + Total SO₂ from number two fuel oil usage;

6.1 tons VOC \geq Total VOC from natural gas usage + Total VOC from number two fuel oil usage;

30.4 tons OC \geq Total OC from natural gas usage + Total OC from number two fuel oil usage; and

15.8 tons PE \geq Total PE from natural gas usage + Total PE from number two fuel oil usage.

The total emissions of each pollutant from natural gas usage and from number two fuel oil usage shall be determined in accordance with d(1).

- (2) The quality of the oil burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable sulfur dioxide emission limitation specified in this permit.
- (3) The permittee shall burn only pipeline quality natural gas, and/or number two fuel oil in this emissions unit.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall maintain monthly records of the following information:
 - a. The amount of number two fuel oil burned, in gallons.
 - b. The amount of natural gas burned, in cubic feet.
 - c. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning natural gas.
 - d. The summation of the operating hours from emissions units P001, P002, P003, P004, P005, and P006 combined when burning number two fuel oil.
 - e. The summation of the NO_x emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - f. The rolling, 12-month summation of the NO_x emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - g. The summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - h. The rolling, 12-month summation of the CO emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.

- i. The summation of the SO₂ emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - j. The rolling, 12-month summation of the SO₂ emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - k. The summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - l. The rolling, 12-month summation of the VOC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - m. The summation of the OC emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
 - n. The summation of the particulate emissions for emissions units P001, P002, P003, P004, P005, and P006 combined, in tons.
- (2) The permittee shall maintain records of the oil burned in this emissions unit in accordance with either Alternative 1 or Alternative 2 described below.
- a. **Alternative 1:**

For each shipment of oil received for burning in this emissions unit, the permittee shall collect or require the oil supplier to collect a representative grab sample of oil and maintain records of the total quantity of oil received, the permittee's or oil supplier's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F). A shipment may be comprised of multiple tank truck loads from the same supplier's batch, or may be represented by single or multiple pipeline deliveries from the same supplier's batch, and the quality of the oil for those loads or pipeline deliveries may be represented by a single batch analysis from the supplier.
 - b. **Alternative 2:**

The permittee shall collect a representative grab sample of oil that is burned in this emissions unit for each day when the emissions unit is in operation. If additional fuel oil is added to the tank serving this emissions unit on a day when the emissions unit is in operation, the permittee shall collect a sufficient number of grab samples to develop a composite sample representative of the fuel oil burned in this emissions unit. A representative grab sample of oil does not need to be collected on days when this emissions unit is only operated for the purpose of "test-firing." The permittee shall maintain records of the total quantity of oil burned each day, except for the purpose of test-firing, the permittee's analyses for sulfur content and heat content, and the calculated sulfur dioxide emission rate (in lb/MMBtu). The sulfur dioxide emission rate shall be calculated in accordance with the formula specified in OAC rule 3745-18-04(F).

The permittee shall perform or require the supplier to perform the analyses for sulfur content and heat content in accordance with 40 CFR Part 60, Appendix A, Method 19, or the appropriate ASTM methods, such as D240 or D4809 Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter and D4294 Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, or equivalent methods as approved by the Director.

(3) Continuous NO_x Emissions Monitoring

- a. 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 or use an excepted monitoring system that meets the requirements of 40 CFR 75.19 (LME methodology - Fuel Gas Split Setpoint, Combustion Reference Temperature, Exhaust Temperature and Inlet Guide Vane Position shall be monitored and recorded during every hour of natural gas firing operation. Water to Fuel Ratio for water injection NO_x control shall be monitored and recorded during every hour of number two fuel oil firing operation. The acceptable ranges of the monitored parameters shall be specified in the quality assurance plan specified in 40 CFR 75.19(e)(5).) The acceptable ranges shall be determined utilizing manufacturer's information and/or engineering judgment in addition to data collected during LME NO_x tests, conducted in accordance with testing specified in Appendix E to 40 CFR 75. Because the permittee utilizes water injection as an add-on NO_x control during number two fuel oil firing, the permittee shall monitor only the water to fuel ratio in accordance with 40 CFR 75.19(c)(1)(iv)(H)(1) as an indicator of proper operation during oil combustion.) Such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.
- b. If used, each continuous monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- c. If used, the permittee shall maintain on-site documentation from the US EPA or the Ohio EPA that the continuous NO_x monitoring system has been certified in accordance with the applicable requirements specified in 40 CFR Part 60 and Part 75. The letter of certification shall be made available to the Director upon request.
- d. If used, 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 (e.g., hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
- e. The permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F

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

- f. The permittee may conduct the relative accuracy test audits for the continuous NO_x monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s) in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.
- g. 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.
- h. For each low mass emissions unit for which fuel-and-unit-specific NO_x emission rates are determined in accordance with 40 CFR 75.19(c)(1)(iv) and which has add-on NO_x emissions controls of any kind or uses dry low-NO_x technology, the permittee shall develop and keep on-site a quality assurance plan which explains the procedures used to document proper operation of the NO_x emission controls. The plan shall include the parameters monitored (e.g., water-to-fuel ratio) and the acceptable ranges for each parameter used to determine proper operation of the unit's NO_x controls.

(4) Continuous CO Emissions Monitoring

- a. The permittee shall either operate and maintain equipment to continuously monitor and record CO emissions from this emissions unit in units of the applicable standard(s) or if the emissions unit meets the requirement of 40 CFR 75.19 for SO₂, NO_x and CO₂, establish fuel-and-unit-specific CO emissions rates using the same methodology as specified for NO_x in 40 CFR 75.19(c)(1)(iv). Note that the requirements of 40 CFR 75 do not apply to CO emissions. Continuous CO monitoring and recording equipment shall comply with the requirements of 40 CFR Part 60.13.
- b. If used, each continuous CO monitoring system consists of all the equipment used to acquire and record data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.
- c. If used, the permittee shall maintain on-site documentation from the US EPA or the Ohio EPA that the continuous CO monitoring system has been certified in accordance with 40 CFR Part 60. The letter of certification shall be made available to the Director upon request.

- d. If used, the permittee shall maintain records of all data obtained by the continuous CO monitoring system including but not limited to, emissions of CO in units of the applicable standard in the appropriate averaging period (e.g. hourly), results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.
 - e. If used, the permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). The plan shall follow the applicable requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous CO monitoring system must be kept on site and available for inspection during regular office hours.
 - f. If used, the permittee may conduct the relative accuracy test audits for the continuous CO monitoring system in accordance with the frequencies required for monitoring systems subject to 40 CFR Part 75, Appendix B; however, the permittee is still required to provide the audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60. Cylinder gas audits may be conducted in accordance with the frequencies specified in 40 CFR Part 75, Appendix B for linearity checks. In addition, linearity checks conducted pursuant to 40 CFR Part 75, Appendix B, may be used in place of quarterly cylinder gas audits, as required in 40 CFR Part 60.
- (5) For each day during which the permittee burns a fuel other than pipeline quality natural gas, and/or number two fuel oil, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
 - (6) The permittee shall install, operate and maintain equipment to continuously monitor and record the actual fuel flow to this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 75. If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75.
 - (7) If using a continuous diluent monitor, the permittee shall install, operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. The monitoring and recording equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.
 - (8) The permittee shall maintain hourly records of the total actual heat input values for this emissions unit, in MMBTU/hr. The total actual heat input values shall be determined using the applicable procedures specified in 40 CFR Part 75, Appendix F, Section 5.2.

e) Reporting Requirements

- (1) Notification and Reporting Procedures: Unless other arrangements have been approved by the Director, all notifications and reports shall be submitted through the Ohio EPA's eBusiness Center: Air Services online web portal.
- (2) Quarterly Reporting: The permittee shall submit quarterly reports that identify each period during which an exemption for ice-fog provided in 40 CFR Part 60.332(f) is in effect. The reports shall include the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time when the air pollution control system was reactivated. These reports shall be postmarked by January 30, April 30, July 30 and October 30 and shall cover the previous calendar quarter.
- (3) Quarterly Deviation Reporting: The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. all exceedances of the annual NO_x, PE and OC emissions limitations for emissions units P001, P002, P003, P004, P005, and P006 combined;
 - b. all exceedances of the rolling, 12-month NO_x, CO, SO₂, and VOC emissions limitations for emissions units P001, P002, P003, P004, P005, and P006 combined;

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

- (4) Number Two Fuel Oil Reporting: The permittee shall submit, on a quarterly basis, copies of the permittee's or oil supplier's analyses for each shipment of number two fuel oil which is received for burning in this emissions unit. The permittee's or oil supplier's analyses shall document the sulfur content (percent) and heat content (Btu/gal) for each shipment of oil. The following information shall also be included with the copies of the permittee's or oil supplier's analyses:
 - a. the total quantity of oil received in each shipment (gallons);
 - b. the weighted* average sulfur content (percent by weight) for the oil received during each calendar month;
 - c. the weighted* average heat content (Btu/gal) of the oil received during each calendar month; and
 - d. the weighted* average SO₂ emissions rate (lb/MMBtu of actual heat input) of the oil combusted during each calendar month (the SO₂ emissions rate shall be calculated as specified in OAC rule 3745-18-04(F)).

* In proportion to the quantity of oil received in each shipment during each calendar month.

(5) Continuous NOx Emissions Reporting:

- a. 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 Ohio EPA Central District Office documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NOx values in excess of the applicable limits specified in the terms and conditions of this permit (178.5 lb/hr at all operating loads and 15 ppmvd at 15% oxygen at full load when burning natural gas and 269.0 lb/hr at all operating loads and 42 ppmvd at 15% oxygen at full load when burning number two fuel oil). These reports shall also contain the total NOx emissions for the calendar quarter (in tons).

For emissions units using LME reporting under 40 CFR 75.19, an excess emissions shall be determined as follows: During natural gas combustion, an excess emissions shall be any unit operating hour (excluding startup and shutdown periods) for which the average Fuel Gas Split Setpoint, Combustion Reference Temperature, Exhaust Temperature, or Inlet Guide Vane Position values, as measured by the excepted monitoring system, falls below the acceptable ranges defined in the quality assurance plan required by 40 CFR 75.19(e)(5). During number two fuel oil combustion, an excess emissions shall be any unit operating hour (excluding startup and shutdown periods) for which the average water to fuel ratio, as measured by the excepted monitoring system, falls below the acceptable range defined in the quality assurance plan required by 40 CFR 75.19(e)(5). Any unit operating period, during which number two fuel oil is combusted, (excluding startup and shutdown periods) in which no water is injected into the emissions unit shall also be considered an excess emissions. Each report shall include the average fuel consumption, ambient conditions (temperature, pressure and humidity), and gas turbine generator electrical load during each excess emissions period.

- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous NOx emissions or parametric 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 and corrective action(s) taken for each time period of emissions unit, monitoring equipment, and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the monitoring system while the emissions unit was on line shall also be included in the quarterly report.

For emissions units using LME provisions under 40 CFR 75.19, a period of monitor downtime shall be any unit operating hour in which the unit is operating and the data used to determine that the monitored parameters are within acceptable ranges is unavailable or invalid.

- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time

during the reporting period and the date, time, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer (if used) 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 if each year and shall address the data obtained during the previous calendar quarter.

(6) Continuous CO Emissions Reporting

- a. Pursuant to OAC rules 3745-15-04, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central 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 limits specified in the terms and conditions of this permit (301 lbs/hour when burning natural gas, and 1093 lbs/hour when burning number two fuel oil). These reports shall also contain the total COemissions for the calendar quarter (in tons).
- b. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA Central District Office documenting any continuous CO monitoring system (if used) 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 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 time of the analyzer (if used) while the emissions unit was on line shall also be included in the quarterly report.
- c. If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the emissions unit operating time during the reporting period and the date, time, and corrective action(s) taken for each time period of emissions unit, control equipment, and/or monitoring system malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer (if used) 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 if each year and shall address the data obtained during the previous calendar quarter.

- (7)** Pursuant to NSPS, the permittee is hereby advised of the requirement to report the date of performance testing when burning number two fuel oil (at least 30 days prior to testing).

Reports are to be sent to:

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



and

Ohio EPA Central District Office
Division of Air Pollution Control
P.O. Box 1049
Columbus, Ohio 43216-1049

- (8) Fuel Type Deviation Reporting: The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than pipeline quality natural gas and/or number two fuel oil was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

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. NOx Emissions Limitations

245 TPY NOx as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

245 TPY of NOx emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method

Compliance shall be based upon recordkeeping and monitoring as specified in Sections d)(1) and d)(3) above.

The monthly NOx emissions shall be added to the total NOx emissions from the previous eleven months to determine the rolling, 12-month summation of NOx emissions. The rolling, 12-month emissions summations shall include emissions data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

b. CO Emissions Limitation

199.4 TPY CO as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method

Compliance shall be based upon recordkeeping and monitoring as specified in Sections d)(1) and d)(4) above.

The monthly CO emissions shall be added to the total CO emissions from the previous eleven months to determine the rolling, 12-month summation of CO emissions. The rolling, 12-month emissions summations shall include emissions

data collected during start-up and shutdown periods and/or generated pursuant to the missing data procedures specified in 40 CFR Part 75.

c. SO₂ Emissions Limitation

11.7 TPY SO₂ as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method

Compliance shall be based upon recordkeeping as specified in Section d)(1) above and shall be determined through a summation of the SO₂ emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the U.S. EPA default value for pipeline quality natural gas (0.0006 lb SO₂/MMBtu) by the combined actual heat input for these emissions units (MMBtu/mo) and then dividing by 2,000 lb/ton.
- ii. The monthly SO₂ emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month in these emissions units by the average percent sulfur of the fuel oil used during the month (or 0.05% sulfur) by the factor of 2 lb of SO₂ per lb of sulfur, divided by the average heat content of the fuel burned during the period, by the combined actual heat input while burning number two fuel oil in these emissions units (MMBtu/hr), and then dividing by 2,000 lb/ton.
- iii. Alternatively, the monthly SO₂ emissions from the burning of number two fuel oil shall be determined by multiplying the average calculated SO₂ emissions rate (determined as an arithmetic average of the calculated SO₂ emissions rates in Section d)(2) (lb/mmBtu)) by the actual heat input for this emissions unit for the month while burning number two fuel oil, and dividing by 2,000 lb/ton.
- iv. The combined rolling, 12-month summation of SO₂ emissions for P001, P002, P003, P004, P005 and P006 shall be the sum of SO₂ emissions derived from natural gas combustion and SO₂ emissions derived from number two fuel oil combustion for each emission unit for a rolling, 12-month period.

d. VOC Emissions Limitation

6.1 TPY VOC as a rolling, 12-month summation combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method

Compliance shall be based upon record keeping as specified in Section d)(1) and shall be determined through a summation of the VOC emissions from the burning of natural gas and number 2 fuel oil as follows:

- i. The VOC emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month, by the average emission rate (lb VOC/hr) derived from the most recent emission tests conducted in accordance with Section f)(2), and dividing by 2,000 lb/ton.
- ii. The VOC emissions for emissions units P001, P002, P003, P004, P005 and P006 from the burning of number two fuel oil shall be determined by multiplying the operating hours while burning number two fuel oil for the month, by the average emissions rate (lb VOC/hr) derived from the most recent emission tests conducted in accordance with Section f)(2), and dividing by 2,000 lb/ton.
- iii. The combined rolling, 12-month summation of VOC emission for emissions units P001, P002, P003, P004, P005 and P006 shall be the sum of VOC emissions from natural gas combustion and VOC emissions derived from number two fuel oil combustion for each emissions unit for a rolling, 12-month period.

e. Number Two Fuel Oil Sulfur Content Limitation

Sulfur content of the number two fuel oil shall be equal to or less than 0.05 percent by weight sulfur.

Applicable Compliance Method

Compliance shall be based upon the fuel oil analysis requirement specified in Section c)(2) and the recordkeeping requirements specified in Section d)(2).

f. Particulate Emissions Limitation

0.040 lb of particulate emissions per million Btu actual heat input.

Applicable Compliance Method

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data. If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(10).

g. NOx Emissions Limitations

NOx emissions shall not exceed 178.5 pounds per hour at all operating loads and 15 ppmvd at 15% oxygen at full load, when firing natural gas, based on a one-hour average. Compliance with the 15 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.

NOx emissions shall not exceed 269.0 pounds per hour at all operating loads and 42 ppmvd at 15% oxygen at full load, when firing number two fuel oil, based on a one-hour average. Compliance with the 42 ppmvd limit is required only when the unit operates at full load for the entire clock-hour of the averaging period.

Applicable Compliance Method

Compliance with the NOx emissions and concentration limitations may be based upon the unbiased data from the NOx continuous emission monitoring system, the fuel flow monitoring equipment and the oxygen monitoring equipment required by this permit or the excepted monitoring system and records as specified in Section d)(3). Emissions calculated using the 40 CFR Part 75 bias adjustment factor or using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emissions limitations.

When combusting natural gas and using a monitoring system in accordance with 40 CFR 75.19, compliance shall be determined by multiplying the heat input (MMBtu/hr) by the NOx emission rate factor determined during the most recent LME NOx emission rate tests in accordance with 40 CFR 75.19(c)(1)(iv).

When combusting number two fuel oil and using a monitoring system in accordance with 40 CFR 75.19, compliance shall be determined by multiplying the heat input (MMBtu/hr) by the NOx emission rate factor determined during the most recent LME NOx emission rate tests in accordance with 40 CFR 75.19(c)(1)(iv).

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

h. CO Emissions Limitations

CO emissions shall not exceed 301.0 pounds per hour when firing natural gas.

CO emissions shall not exceed 1093 pounds per hour when firing number two fuel oil.

Applicable Compliance Method

If a CO continuous emissions monitoring system is used to determine compliance with the CO emissions limitation above, compliance may be based upon the data from the CO continuous emissions monitoring system, and the fuel



flow monitoring equipment required by this permit. Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

When combusting natural gas and using a monitoring system in compliance with 40 CFR 75.19, compliance shall be determined by multiplying the hours of operation by the CO emissions rate factor (lb/hr) or the heat input by the CO emissions rate factor (lb/MMBtu) determined during the most recent LME CO emissions rate tests in accordance with 40 CFR 75.19(c)(1)(iv).

When combusting number two fuel oil and using a monitoring system in compliance with 40 CFR 75.19, compliance shall be determined by multiplying the hours of operation by the CO emissions rate factor (lb/hr) or the heat input by the CO emissions rate factor (lb/MMBtu) determined during the most recent LME CO emissions rate tests in accordance with 40 CFR 75.19(c)(1)(iv).

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

i. SO₂ Emissions Limitation

0.06 pounds of SO₂ emissions per million Btu actual heat input

Applicable Compliance Method

When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in Sections c)(6) and d)(2) and the use of the equations specified in OAC rule 3745-18-04(F).

When firing natural gas, compliance with this limitation will be assumed due to the negligible percent sulfur, by weight, in the fuel. If required, the permittee shall perform or require the supplier to perform an analysis of the natural gas for sulfur content in accordance with the appropriate ASTM methods or an equivalent method as approved by the Director, in order to demonstrate compliance with this emission limitation using the appropriate equation specified in AP-42 Table 3.1-1 (4/00).

j. SO₂ Emissions Limitations

2.0 pounds per hour of SO₂ emissions when firing natural gas.

61.0 pounds per hour of SO₂ emissions when firing number two fuel oil.

Applicable Compliance Method

These limits were based on the worse case sulfur content for pipeline quality natural gas and number two fuel oil and AP-42 emission factors.

When firing natural gas, compliance shall be based upon multiplying the U.S. EPA default value for pipeline quality natural gas by the maximum heat input

capacity of this emissions unit. When firing number two fuel oil, compliance shall be based upon the fuel analysis and record keeping requirements specified in Sections c)(6) and d)(2) and shall be determined by multiplying the sulfur dioxide emissions in lb(s) SO₂/MMBtu by the maximum heat input capacity of this emissions unit.

If required, the permittee shall demonstrate compliance with the hourly emission limitation when burning number two fuel oil through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

k. VOC Emissions Limitations

2.0 pounds per hour of VOC emissions when firing natural gas.

5.5 pounds per hour of VOC emissions when firing number two fuel oil.

Applicable Compliance Method

Compliance shall be determined through the average emissions rate obtained from the most recent VOC emissions tests performed in accordance with the requirements specified in Section f)(2).

l. OC Emissions Limitations

10.0 pounds per hour of OC emissions when firing natural gas.

11.0 pounds per hour of OC emissions when firing number two fuel oil.

Applicable Compliance Method

Compliance shall be based upon the recordkeeping requirements specified in Section d)(1) and by the manufacturer's guaranteed emissions data.

If required, the permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 and 25A, as appropriate.

m. OC Emissions Limitation

30.4 TPY organic emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method

Compliance shall be based upon recordkeeping as specified in Section d)(1) and the manufacturer's guaranteed emissions data or Ohio EPA approved emission factors obtained from approved emissions testing.\

n. Particulate Emissions Limitations

5.0 pounds per hour of particulate emissions when firing natural gas.

10.0 pounds per hour of particulate emissions when firing number two fuel oil.

Applicable Compliance Method

Compliance shall be demonstrated by the manufacturer's guaranteed emissions data.

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

o. Particulate Emissions Limitation

15.8 TPY particulate emissions combined from emissions units P001, P002, P003, P004, P005, and P006.

Applicable Compliance Method

Compliance shall be based upon recordkeeping as specified in Section d)(1) and the manufacturer's guaranteed emissions data.

p. Visible Emissions Limitation

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

Applicable Compliance Method

If required, compliance shall be determined through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

(2) VOC emissions testing requirements: Upon initial use of number two fuel oil, the permittee shall conduct, or have conducted, emissions testing for this emissions unit in accordance with the following requirements:

a. The emissions testing shall be conducted within 90 days following startup of the emissions unit.

b. The emissions testing shall be conducted to demonstrate compliance with the VOC emission*** limitation.

***the permittee has requested that if the average emissions rate (lb/hr) derived from the emission test conducted in accordance with this term is less than the permit VOC allowable listed in Section b)(1), it may apply for an air permit to install modification to increase the hours of operation. The permittee realizes

that this modification might trigger the requirement to secure either an administrative or a new air permit to install.

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

40 CFR Part 60, Appendix A, Methods 1 through 4 and 18 and/or Method 25 or 25A, as appropriate.

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

- d. The test(s) shall be conducted under those representative conditions that challenge to the fullest extent possible a facility's ability to meet the applicable emissions limits and/or control requirements, unless otherwise specified or approved by the Ohio EPA Central District Office. Although this generally consists of operating the emissions unit at its maximum material input/production rates and results in the highest emission rate of the tested pollutant, there may be circumstances where a lower emissions loading is deemed the most challenging control scenario. Failure to test under these conditions is justification for not accepting the test results as a demonstration of compliance.
- 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 Central 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 Central District Office's refusal to accept the results of the emission test(s).
- f. Personnel from the Ohio EPA Central 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA Central 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 Central District Office.

g) **Miscellaneous Requirements**

- (1) If continuous emissions monitoring is used, the quality assurance/quality control plan for the continuous nitrogen oxides monitoring system required pursuant to 40 CFR Part 75, Appendix B, must be made available during scheduled inspections and upon request by the Ohio EPA, Central District Office.