



11/6/2013

Michael Bayes  
Buckeye Power Greenville Station  
1 Riverside Plaza  
Columbus, OH 43215

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL  
Facility ID: 0819070237  
Permit Number: P0113868  
Permit Type: Administrative Modification  
County: Darke

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
No	MACT/GACT
No	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 Regional Air Pollution Control Agency at (937)225-4435 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,

*Michael W. Ahern*

Michael W. Ahern, Manager

Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA  
RAPCA; Indiana



**FINAL**

**Division of Air Pollution Control  
Permit-to-Install  
for  
Buckeye Power Greenville Station**

Facility ID: 0819070237  
Permit Number: P0113868  
Permit Type: Administrative Modification  
Issued: 11/6/2013  
Effective: 11/6/2013





**Division of Air Pollution Control**  
**Permit-to-Install**  
for  
Buckeye Power Greenville Station

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**Final Permit-to-Install**  
Buckeye Power Greenville Station  
**Permit Number:** P0113868  
**Facility ID:** 0819070237  
**Effective Date:** 11/6/2013

## Authorization

Facility ID: 0819070237  
Facility Description: Electric Services  
Application Number(s): A0047357  
Permit Number: P0113868  
Permit Description: Administrative modification to 08-04080 for B001 through B008 to allow for the use of the Low Mass Emitter provisions in 40 CFR Part 75 for monitoring NOx emissions and similar methodology for monitoring CO emissions.  
Permit Type: Administrative Modification  
Permit Fee: \$1,200.00  
Issue Date: 11/6/2013  
Effective Date: 11/6/2013

This document constitutes issuance to:

Buckeye Power Greenville Station  
5119 Sebring Warner Road  
Greenville, OH 45331

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

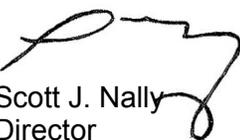
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Regional Air Pollution Control Agency  
117 South Main Street  
Dayton, OH 45422-1280  
(937)225-4435

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

  
Scott J. Nally  
Director



## Authorization (continued)

Permit Number: P0113868

Permit Description: Administrative modification to 08-04080 for B001 through B008 to allow for the use of the Low Mass Emitter provisions in 40 CFR Part 75 for monitoring NOx emissions and similar methodology for monitoring CO emissions.

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

**Group Name: Combustion Turbines**

<b>Emissions Unit ID:</b>	<b>B001</b>
Company Equipment ID:	G1CT1 - Generator No. 1/Turbine No. 1
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B002</b>
Company Equipment ID:	G1CT2 - Generator No. 1/Turbine No. 2
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B003</b>
Company Equipment ID:	G2CT1 - Generator No. 2/Turbine No. 1
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B004</b>
Company Equipment ID:	G2CT2 - Generator No. 2/Turbine No. 2
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B005</b>
Company Equipment ID:	G3CT1 - Generator No. 3/Turbine No. 1
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B006</b>
Company Equipment ID:	G3CT2 - Generator No. 3/Turbine No. 2
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B007</b>
Company Equipment ID:	G4CT1 - Generator No. 4/Turbine No. 1
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable
<b>Emissions Unit ID:</b>	<b>B008</b>
Company Equipment ID:	G4CT2 - Generator No. 4/Turbine No. 2
Superseded Permit Number:	08-04080
General Permit Category and Type:	Not Applicable



**Final Permit-to-Install**  
Buckeye Power Greenville Station  
**Permit Number:** P0113868  
**Facility ID:** 0819070237  
**Effective Date:** 11/6/2013

## **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 Regional Air Pollution Control Agency.



- (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 Regional Air Pollution Control Agency. 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 Regional Air Pollution Control Agency 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 Regional Air Pollution Control Agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

## **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 Regional Air Pollution Control Agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
  - (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 Regional Air Pollution Control Agency.
- b) Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the Regional Air Pollution Control Agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, 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.



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Buckeye Power Greenville Station  
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**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**  
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## **B. Facility-Wide Terms and Conditions**



**Final Permit-to-Install**  
Buckeye Power Greenville Station  
**Permit Number:** P0113868  
**Facility ID:** 0819070237  
**Effective Date:** 11/6/2013

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.



**Final Permit-to-Install**  
Buckeye Power Greenville Station  
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## **C. Emissions Unit Terms and Conditions**



**1. Emissions Unit Group -Combustion Turbines: B001,B002,B003,B004,B005,B006,B007,B008,**

EU ID	Operations, Property and/or Equipment Description
B001	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G1CT1
B002	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G1CT2
B003	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G2CT1
B004	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G2CT2
B005	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G3CT1
B006	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G3CT2
B007	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G4CT1
B008	269.71 mmBtu/hr natural gas/No. 2 oil, simple cycle combustion turbine with water injection nitrogen oxides reduction system; G4CT2

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><u>For emissions unit B001, B002, B003, B004, B005, B006, B007 and B008 individually:</u></p> <p>Nitrogen oxide (NOx) emissions from this emissions unit shall not exceed 29.9 lbs/hr when firing natural gas, excluding startup and shutdown periods.</p> <p>NOx emissions shall not exceed 46.7 lbs/hr when firing number two fuel oil, excluding startup and shutdown periods.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>When burning natural gas, NOx emissions shall not exceed 25 ppmvd at 15%, as a one hour average, excluding startup and shutdown periods.</p> <p>When firing number two fuel oil, NOx emissions shall not exceed 42 ppmvd at 15% oxygen, as a one hour average, excluding start-up and shutdown periods.</p> <p>Carbon monoxide (CO) emissions from this emissions unit shall not exceed 73.5 lbs/hr when firing natural gas, excluding startup and shutdown periods.</p> <p>CO emissions from this emissions unit shall not exceed 33.4 lbs/hr when firing number two fuel oil, excluding startup and shutdown periods.</p> <p>Sulfur dioxide (SO2) emissions from this emissions unit shall not exceed 0.195 lb/hr when firing natural gas, excluding startup and shutdown periods.</p> <p>SO2 emissions from this emissions unit shall not exceed 14.7 lbs/hr when firing number two fuel oil, excluding startup and shutdown periods.</p> <p>SO2 emissions shall not exceed 0.06 lb/mmBtu actual heat input.</p> <p>See c)(2).</p> <p>Volatile organic compounds (VOC*) emissions from this emissions unit shall not exceed 1.45 lbs/hr when firing natural gas, excluding startup and shutdown periods.</p> <p>VOC emissions from this emissions unit shall not exceed 2.7 lbs/hr when firing number two fuel oil, excluding startup and shutdown periods.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		<p>* The permittee has submitted emission data that supports, for purposes of avoiding both federal 112(g) regulations and OAC rule 3745-31-28 requirements, that all hazardous air pollutants (HAPs) emissions are less than the VOC emission levels.</p> <p>Organic compound (OC) emissions from this emissions unit shall not exceed 17 lbs/hr when firing natural gas, excluding startup and shutdown periods.</p> <p>OC emissions from this emissions unit shall not exceed 10.61 lbs/hr when firing number two fuel oil, excluding startup and shutdown periods.</p> <p>Combined OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.</p> <p>Particulate emissions (PE) from this emissions unit shall not exceed 1.7 lbs/hr when firing natural gas, excluding startup and shutdown periods.</p> <p>PE from this emissions unit shall not exceed 7.0 lbs/hr when firing number two fuel oil, excluding startup and shutdown periods.</p> <p>Combined PE shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.</p> <p>See b)(2)f.</p> <p>Visible particulate emissions shall not exceed 10% opacity, as a 6-minute average.</p> <p>See b)(2)a. through b)(2)d.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
		The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-11(B)(4), and 3745-31-05(D).
b.	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid Major NSR)	<p>Combined NOx emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.</p> <p>Combined CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.</p> <p>Combined SO2 emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.</p> <p>Combined VOC* emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.</p>
c.	OAC rule 3745-17-11(B)(4)	Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.
d.	40 CFR Part 75	See d)(2) and d)(6) for the specific monitoring and record keeping requirements and e)(3) for the specific reporting requirements
e.	OAC rule 3745-17-07(A) OAC rule 3745-18-06(F) 40 CFR Part 60, Subpart GG	The emission 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).

(2) Additional Terms and Conditions

- a. Compliance with OAC rule 3745-31-05(A)(3) shall be demonstrated through the use of water injection to reduce nitrogen oxides emissions and compliance with the applicable emission limitations, additional terms and conditions, operational restrictions, monitoring, record keeping, reporting and testing requirements.



- b. 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 a certified NOx continuous emissions monitoring system or use an accepted 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 certified CO continuous emissions monitoring system or excepted monitoring system as described in 40 CFR 75.19 (LME in a manner similar to that used for NOx) in conjunction with a fuel flow monitor to meet these requirements.
- c. In lieu of the excess emissions reporting requirements specified in 40 CFR Part 60.334 (Subpart GG), the permittee shall submit excess emissions reports from this emissions unit in accordance with the terms and conditions of this permit.
- d. In lieu of the emission testing requirements specified in 40 CFR Part 60.335 (Subpart GG), the permittee shall comply with the testing and continuous emissions monitoring requirements for this emissions unit in accordance with the terms and conditions of this permit.
- e. 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, NOx, SO2, CO2, mass emissions, and the NOx 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, NOx, CO2 mass emissions, NOx emission rate, and Unit Heat Input.
- f. The total PM10 emissions were evaluated and did not trigger any additional federal requirements therefore the emissions are being regulated as particulate emissions.

c) Operational Restrictions

- (1) The maximum combined annual operating hours for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, shall not exceed 8,863\* while burning natural gas and 694\* while burning number two fuel oil, based upon a rolling, 12-month summation of the operating hours.

\*The permittee may burn natural gas for an additional 1.86 hours for every hour number two fuel oil is not burned, up to a total of 10,154 hours annually.

- (2) The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.
- (3) The permittee shall burn only pipeline natural gas or number two fuel oil in this emissions unit.



- (4) Start-up shall be defined as the time necessary to bring a turbine on line from a no load condition to fully activated water injection and shall not exceed a maximum of 15 minutes. Shutdown periods shall not exceed 15 minutes.
- 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 combined operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in hours, when burning natural gas and when burning number two fuel oil.
  - d. The rolling, 12-month summation of the combined operating hours from emissions units B001, B002, B003, B004, B005, B006, B007, and B008 when burning natural gas and when burning number two fuel oil. The monthly operating hours shall be added to the total operating hours from the previous 11 months to determine the rolling, 12-month summation of operating hours.
  - e. The summation of the combined OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons.
  - f. The summation of the combined particulate emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons.
  - g. The summation of the combined NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons.
  - h. The rolling, 12-month summation of the combined NO<sub>x</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
  - i. The summation of the combined CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons.
  - j. The rolling, 12-month summation of the combined CO emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
  - k. The summation of the combined SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons.
  - l. The rolling, 12-month summation of the combined SO<sub>2</sub> emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.



- m. The summation of the combined VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons.
  - n. The rolling, 12-month summation of the combined VOC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in tons. The monthly emissions shall be added to the total emissions from the previous 11 months to determine the rolling, 12-month summation of emissions.
  - o. The date, time, and duration of each start-up and shutdown period.
  - p. The combined actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in mmBtu/month, when burning natural gas. The combined actual heat input for emissions units B001, B002, B003, B004, B005, B006, B007, and B008, in mmBtu/month, when burning number two fuel oil.
- (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 lbs/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 lbs/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 the following ASTM methods: ASTM method D4294 for sulfur content and ASTM method D240 for heat



content. The newest or most recent revisions to the applicable test method shall be used for analyses. Alternative, equivalent methods may be used upon written approval by the Regional Air Pollution Control Agency.

- (3) The permittee shall operate and maintain equipment or use an excepted monitoring system that meets the requirements of 40 CFR 75.19 (LME methodology) to continuously monitor and record NO<sub>x</sub> emissions from this emissions unit in units of the applicable standard(s). If used, such continuous monitoring and recording equipment shall comply with the applicable requirements specified in 40 CFR Part 60 and Part 75.
- a. If used, each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.
  - b. If used, the permittee shall maintain on-site documentation from the USEPA or the Ohio EPA that the continuous NO<sub>x</sub> 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.
  - c. If used, the permittee shall maintain records of the following data obtained by the continuous NO<sub>x</sub> monitoring system: emissions of NO<sub>x</sub> in ppmvd at 15% oxygen on an hourly average basis, lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits, linearity checks or relative accuracy test audits and magnitude of manual calibration adjustments.
  - d. The permittee shall develop a written quality assurance/quality control plan for the continuous NO<sub>x</sub> monitoring system, if used, designed to ensure continuous valid and representative readings of NO<sub>x</sub> 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<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
  - e. The permittee may conduct the relative accuracy test audits for the continuous nitrogen oxides monitoring system (if used) 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. 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.
  - f. For each low mass emissions unit for which fuel-and-unit-specific NO<sub>x</sub> emission rates are determined in accordance with 40 CFR 75.19(c)(1)(iv) and which has add-on NO<sub>x</sub> emissions controls of any kind or uses dry low-NO<sub>x</sub> 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<sub>x</sub> 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<sub>x</sub> controls.

- (4) 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 SO<sub>2</sub>, NO<sub>x</sub> and CO<sub>2</sub>, establish fuel-and-unit-specific CO emissions rates using the same methodology as specified for NO<sub>x</sub> in 40 CFR 75.19(c)(1)(iv). Note that the requirements of 40 CFR 75 do not apply to CO emissions. If used, continuous CO monitoring and recording equipment shall comply with the requirements of 40 CFR Part 60.13.
- a. If used, each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.
  - b. If used, the permittee shall maintain on-site documentation from the USEPA 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.
  - c. If used, the permittee shall maintain records of the following data obtained by the continuous CO monitoring system: emissions of CO in lbs/hr, results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy test audits and magnitude of manual calibration adjustments.
  - d. The permittee shall develop a written quality assurance/quality control plan for the continuous CO monitoring system (if used) designed to ensure continuous valid and representative readings of CO emissions in units of the applicable standard(s). The plan shall follow the 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.
  - e. The permittee may conduct the relative accuracy test audits for the continuous CO monitoring system (if used) 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 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 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 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.
- e) Reporting Requirements
- (1) 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.
  - (2) The permittee shall submit quarterly deviation (excursion) reports that identify any exceedances of the following:
    - a. The combined rolling, 12-month NO<sub>x</sub>\*, CO\*, SO<sub>2</sub>, and VOC emission limitations for emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
    - b. The combined rolling, 12-month operating hours limitation for emissions units B001, B002, B003, B004, B005, B006, B007, and B008.
    - c. The start-up or shutdown time period restriction.

\* The combined rolling, 12-month emission summations for these pollutants 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.

The quarterly deviation (excursion) reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
  - (3) The permittee shall submit quarterly deviation (excursion) reports, for fuel oil, of any exceedances of the 0.05% by weight sulfur content; the heat content, in Btu/gallon; the quantity, in gallons; and the calculated SO<sub>2</sub> emissions rate, in lb/mmBtu.
  - (4) The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO<sub>x</sub> values in excess of the applicable emission limitations specified in the terms and conditions of this permit.



The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting any continuous NOx 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, 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 (if used) while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess NOx 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 malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line also shall be included in the quarterly report. These quarterly excess emission reports shall be submitted by January 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

- (5) The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency documenting the date, commencement and completion time, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of CO values in excess of the applicable emission limitations specified in the terms and conditions of this permit.

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Regional Air Pollution Control Agency 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, 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 (if used) while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess CO 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 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 of each year and shall address the data obtained during the previous calendar quarter.

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



- (7) The permittee shall submit annual reports that specify the combined total particulate, SO<sub>2</sub>, NO<sub>x</sub><sup>\*</sup>, CO<sup>\*</sup>, VOC and OC emissions from emissions units B001, B002, B003, B004, B005, B006, B007, and B008, for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for these emissions units in the annual Fee Emission Report.

\* The annual emissions for these pollutants 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.

f) Testing Requirements

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

a. Emission Limitation

Combined NO<sub>x</sub> emissions shall not exceed 120 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method

Compliance shall be based upon the records required in d)(1) and shall be determined through the use of a NO<sub>x</sub> continuous emissions monitoring system or the excepted monitoring system as specified in section d)(3) of this permit.

b. Emission Limitation

Combined CO emissions shall not exceed 249 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method

Compliance shall be based upon the records required in d)(1) and shall be determined through the use of a CO continuous emissions monitoring system or the excepted monitoring system as specified in section d)(4) of this permit.

c. Emission Limitation

Combined SO<sub>2</sub> emissions shall not exceed 5.7 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method

Compliance shall be based upon the records required in d)(1) and shall be determined through a summation of the monthly SO<sub>2</sub> emissions from the burning of natural gas and number two fuel oil as follows:



- i. The monthly SO<sub>2</sub> emissions from the burning of natural gas shall be determined by multiplying the USEPA default value for pipeline natural gas (0.0006 lb of SO<sub>2</sub>/mmBtu) by the combined actual heat input while burning natural gas (mmBtu/month) in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 and then dividing by 2,000 lbs/ton.
- ii. The monthly SO<sub>2</sub> emissions 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 emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average percent sulfur of the fuel oil used during the period (or 0.05% sulfur) by the factor of 2 lbs of SO<sub>2</sub> 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 emissions units B001, B002, B003, B004, B005, B006, B007, and B008 (mmBtu/month) and then dividing by 2,000 lbs/ton.

d. Emission Limitation

Combined VOC emissions shall not exceed 7.4 tons per rolling, 12-month period from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method

Compliance shall be based upon the records required in d)(1) and shall be determined through a summation of the monthly VOC emissions from the burning of natural gas and number two fuel oil as follows:

- i. The VOC emissions from the burning of natural gas shall be determined by multiplying the operating hours while burning natural gas for the month in emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.
- ii. The VOC emissions 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 emissions units B001, B002, B003, B004, B005, B006, B007, and B008 by the average emission rate (lbs VOC/hour) derived from the most recent emission test that demonstrated that the emissions unit was in compliance and dividing by 2,000 lbs/ton.

e. Emission Limitation

The permittee shall only burn number two fuel oil in this emissions unit that has a sulfur content equal to or less than 0.05%, by weight.

Applicable Compliance Method

Compliance shall be based upon the number two fuel oil analysis requirement and the records required in d)(2).



f. Emission Limitation

Particulate emissions shall not exceed 0.040 lb/mmBtu of actual heat input.

Applicable Compliance Method

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

g. Emission Limitations

When burning natural gas, NO<sub>x</sub> emissions shall not exceed 25 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When burning natural gas, NO<sub>x</sub> emissions shall not exceed 29.9 lbs/hour, excluding start-up and shutdown periods.

When firing number two fuel oil, NO<sub>x</sub> emissions shall not exceed 42 ppmvd at 15% oxygen, as a one-hour average, excluding start-up and shutdown periods.

When firing number two fuel oil, NO<sub>x</sub> emissions shall not exceed 46.7 lbs/hour, excluding start-up and shutdown periods.

Combined NO<sub>x</sub> emissions shall not exceed 120 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007 and B008.

Applicable Compliance Method

Compliance with the NO<sub>x</sub> emission and concentration limitations shall be based upon the unbiased data from the NO<sub>x</sub> continuous emissions monitoring system or the excepted monitoring system as specified in section d)(3) of this permit, and the records required in 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 emission limitation.

Compliance with the annual NO<sub>x</sub> emission limitation shall be based upon the records required in d)(1).

If required, the permittee shall demonstrate compliance with the NO<sub>x</sub> concentration and hourly emission limitations through emission tests performed in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 7. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.



h. Emission Limitations

When burning natural gas, CO emissions shall not exceed 73.5 lbs/hour.

When burning number two fuel oil, CO emissions shall not exceed 33.4 lbs/hour.

Applicable Compliance Method

Compliance with the CO emission limitations shall be based upon the data from the CO continuous emissions monitoring system or the excepted monitoring system as specified in section d)(4) of this permit, and the records required in d)(4). Emissions calculated using missing data procedures due to monitor downtime shall not be used to determine compliance with the hourly emission limitation.

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

i. Emission Limitation

SO<sub>2</sub> emissions shall not exceed 0.06 lb/mmBtu actual heat input.

Applicable Compliance Method

When firing number two fuel oil, compliance shall be based upon the fuel analysis requirement and the records required in 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 method (such as, ASTM method D3031), 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 (10/96).

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 4 and 6. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

j. Emission Limitations

When burning natural gas, SO<sub>2</sub> emissions shall not exceed 0.195 lb/hour.

When burning number two fuel oil, SO<sub>2</sub> emissions shall not exceed 14.7 lbs/hour.



Applicable Compliance Method

When firing natural gas, compliance may be based upon multiplying the USEPA default value for pipeline natural gas by the maximum heat input capacity of this emissions unit. When firing number two fuel oil, compliance may be based upon the fuel analysis requirement and the records required in d)(2) and shall be determined by multiplying the sulfur dioxide emissions in lb of SO<sub>2</sub>/mmBtu by the maximum heat input capacity of this emissions unit.

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

k. Emission Limitations

When burning natural gas, VOC emissions shall not exceed 1.45 lbs/hour.

When burning number two fuel oil, VOC emissions shall not exceed 2.7 lbs/hour.

Applicable Compliance Method

The permittee shall demonstrate compliance with these emission limitations through emission tests performed in accordance with the methods and procedures specified in f)(2).

l. Emission Limitations

When burning natural gas, OC emissions shall not exceed 17 lbs/hour.

When burning number two fuel oil, OC emissions shall not exceed 10.61 lbs/hour.

Applicable Compliance Method

Compliance may be based upon 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 25. Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

m. Emission Limitation -

Combined OC emissions shall not exceed 60.1 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.



Applicable Compliance Method -

Compliance shall be based upon records required in d)(1).

n. Emission Limitations

When burning natural gas, particulate emissions shall not exceed 1.7 lbs/hour.

When burning number two fuel oil, particulate emissions shall not exceed 7.0 lbs/hour.

Applicable Compliance Method

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

o. Emission Limitation

Combined particulate emissions shall not exceed 8.9 tons/year from emissions units B001, B002, B003, B004, B005, B006, B007, and B008.

Applicable Compliance Method

Compliance shall be based upon records required in d)(1).

p. Emission Limitation

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

Applicable Compliance Method

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

(2) 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 90 days of initiating fuel oil combustion for this emissions unit.
- b. The emission testing shall be conducted to demonstrate compliance with the VOC\*\* and particulate emission limitations.
- c. The following test methods shall be employed to demonstrate compliance with the allowable emission limitations: Methods 1 through 5 and 18, 25, and/or 25A,



as appropriate, 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 tests shall be conducted while the emissions unit is operating at its maximum capacity, unless otherwise specified or approved by the Regional Air Pollution Control Agency. The tests shall be conducted when burning number two fuel oil.

\*\* The permittee has requested that if the average emission rates (lbs/hour) derived from the emission tests conducted in accordance with this term are less than the VOC emission limitations in b)(1), they 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.

Not later than 60 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Regional Air Pollution Control Agency. 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 Regional Air Pollution Control Agency's refusal to accept the results of the emission test(s).

Personnel from the Regional Air Pollution Control Agency 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.

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 Regional Air Pollution Control Agency 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 Regional Air Pollution Control Agency.

g) **Miscellaneous Requirements**

- (1) None.