



State of Ohio Environmental Protection Agency

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P.O. Box 1049
Columbus, OH 43216-1049

11/20/2008

Certified Mail

Leslia Lemaster
DP&L, J.M. Stuart Generating Station
P.O. Box 468
Aberdeen, OH 45101

RE: FINAL AIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0701000007
Permit Number: 07-00595
Permit Type: Initial Installation
County: Adams

No	TOXIC REVIEW
No	PSD
Yes	SYNTHETIC MINOR
No	CEMS
Yes	MACT
Yes	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED

Dear Permit Holder:

Enclosed please find a final 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.

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission ("ERAC") under Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and describe the action complained of and the grounds for the appeal. The appeal must be filed with the ERAC within thirty (30) days after notice of the Director's action. A filing fee of \$70.00 must be submitted to the ERAC with the appeal, although the ERAC, has discretion to reduce the amount of the filing fee if you can demonstrate (by affidavit) that payment of the full amount of the fee would cause extreme hardship. If you file an appeal of this action, you must notify Ohio EPA of the filing of the appeal (by providing a copy to the Director) within three (3) days of filing your appeal with the ERAC. Ohio EPA requests that a copy of the appeal also be provided to the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the ERAC at the following address:

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

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. If you have any questions regarding this permit, please contact the Portsmouth City Health Dept., Air Pollution Unit. This permit has been posted to the Division of Air Pollution Control (DAPC) Web page <http://www.epa.state.oh.us/dapc>.

Sincerely,

Michael W. Ahern, Manager
Permit Issuance and Data Management Section, DAPC

Cc: U.S. EPA Region 5 Via E-Mail Notification
Portsmouth City Health Dept., Air Pollution Unit

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director



**State of Ohio Environmental Protection Agency
Division of Air Pollution Control**

FINAL

Air Pollution Permit-to-Install
for
DP&L, J.M. Stuart Generating Station

Facility ID: 0701000007
Permit Number: 07-00595
Permit Type: Initial Installation
Issued: 11/20/2008
Effective: 11/20/2008



State of Ohio Environmental Protection Agency
 Division of Air Pollution Control

Air Pollution Permit-to-Install
 for
 DP&L, J.M. Stuart Generating Station

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State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 07-00595
Facility ID: 0701000007
Effective Date: 11/20/2008

Authorization

Facility ID: 0701000007
Facility Description: Electric Generating Station
Application Number(s): A0007359
Permit Number: 07-00595
Permit Description: Dayton Power and Light plans to install four new fire tubed boilers (B010-B013) rated at 70.157 mmBTU/hr to replace the existing auxiliary boiler (B005) rated at 285 mmBTU/hr.

Permit Type: Initial Installation
Permit Fee: \$1,600.00
Issue Date: 11/20/2008
Effective Date: 11/20/2008

This document constitutes issuance to:

DP&L, J.M. Stuart Generating Station
U.S. Route 52
Aberdeen, OH 45101

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

Ohio EPA District Office or local air agency responsible for processing and administering your permit:

Portsmouth City Health Dept., Air Pollution Unit
605 Washington Street
3rd Floor
Portsmouth, OH 45662
(740)353-5156

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

Chris Korleski
Director



Authorization (continued)

Permit Number: 07-00595
 Permit Description: Dayton Power and Light plans to install four new fire tubed boilers (B010-B013) rated at 70.157 mmBTU/hr to replace the existing auxiliary boiler (B005) rated at 285 mmBTU/hr.

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

Group Name: Auxiliary Steam Boilers

Emissions Unit ID:	
Company Equipment ID:	B010
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	
Company Equipment ID:	B011
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	
Company Equipment ID:	B012
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	
Company Equipment ID:	B013
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 07-00595
Facility ID: 0701000007
Effective Date: 11/20/2008

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 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) The permittee must comply with all terms and conditions of this permit. Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and 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 Portsmouth City Health Dept., Air Pollution Unit.



- (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 Portsmouth City Health Dept., Air Pollution Unit. 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 (i.e., postmarked) to the Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit 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) The emissions unit(s) identified in this Permit shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.
- b) 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.
- c) 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.
- d) The permittee shall submit progress reports to the Portsmouth City Health Dept., Air Pollution Unit 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 Portsmouth City Health Dept., Air Pollution Unit.
- 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 Portsmouth City Health Dept., Air Pollution Unit. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be



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

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).

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 party 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 through completion of the annual PER covering the last period of operation 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 PER covering the last period the emissions unit operated.



No emissions unit certified by the authorized official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a PER, 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 the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).

13. Construction Compliance Certification

The applicant shall identify the following dates in the online 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 (i.e., postmarked), 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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 07-00595
Facility ID: 0701000007
Effective Date: 11/20/2008

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The Portsmouth City Health Dept., Air Pollution Unit must be notified in writing of any transfer of this permit.

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 07-00595
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B. Facility-Wide Terms and Conditions



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 07-00595
Facility ID: 0701000007
Effective Date: 11/20/2008

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.



State of Ohio Environmental Protection Agency
Division of Air Pollution Control

Final Permit-to-Install
Permit Number: 07-00595
Facility ID: 0701000007
Effective Date: 11/20/2008

C. Emissions Unit Terms and Conditions



1. Emissions Unit Group - Auxiliary Steam Boilers: B010, B011, B012, B013,

EU ID	Operations, Property and/or Equipment Description
B010	70.157 mmBtu/hr heat input No. 2 fuel oil and/or biodiesel fuel fired auxiliary steam boiler
B011	70.157 mmBtu/hr heat input No. 2 fuel oil and/or biodiesel fuel fired auxiliary steam boiler
B012	70.157 mmBtu/hr heat input No. 2 fuel oil and/or biodiesel fuel fired auxiliary steam boiler
B013	70.157 mmBtu/hr heat input No. 2 fuel oil and/or biodiesel fuel fired auxiliary steam boiler

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 operations(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. 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>When burning Number 2 fuel oil or biodiesel fuel:</p> <p>Particulate emissions (PE) and emissions of Particulate Matter less than 10 microns in diameter (PM10) shall not exceed 0.02 lb/mmBtu of actual heat input and 1.08 pounds per hour.</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 0.37 lb/mmBtu of actual heat input and 25.35 pounds per hour.</p> <p>Nitrogen oxides (NO_x) emissions shall not exceed 0.18 lb/mmBtu of actual heat input and 13.42 pounds per hour.</p> <p>Carbon monoxide (CO) emissions shall not exceed 0.04 lb/mmBtu of actual heat input and 2.68 pounds per hour.</p> <p>See b)(2)b and c)(1) through c)(3) below.</p> <p>The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-08(B) and 40 CFR Part 60, Subpart Dc.</p>



	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
b.	OAC rule 3745-17-07(A)(1)	The visible particulate emission limitation required by this applicable rule is less stringent than the visible particulate emission limitation established pursuant to 40 CFR Part 60, Subpart Dc.
c.	OAC rule 3745-17-10(B)(1)	The emission limitation required by this applicable rule is equivalent to the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
d.	OAC rule 3745-18-06	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
e.	40 CFR Part 60, Subpart Dc	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.
f.	OAC rule 3745-21-08(B)	See b)(2)c below.
g.	OAC rule 3745-31-05(D)(1)(a)	See b)(2)f below.

(2) Additional Terms and Conditions

- a. The lb/mmBtu emission limitations outlined in b)(1), except for SO₂ emissions when firing fuel oil or biodiesel, are based upon the emissions unit=s potential to emit. Therefore, no records are required to demonstrate compliance with these emission limitations.
- b. The maximum total annual emissions from emissions units B010, B011, B012 and B013, combined, shall not exceed the following emission rates as a rolling, 12-month summation:
 - 17.60 tons per year of NO_x;
 - 39.76 tons per year of SO₂;
 - 4.00 tons per year of CO;
 - 1.60 tons per year of PE;
 - 0.80 ton per year of PM₁₀; and
 - 0.20 ton per year of particulate emissions less than 2.5 microns (PM 2.5).
- c. The permittee satisfies the ~~A~~best available control techniques and operating practices~~@~~ and ~~A~~latest available control techniques and operating practices~~@~~ required pursuant to OAC rule 3745-21-08 by complying with the best available technology requirements of OAC rule 3745-31-05(A)(3).



On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. On June 24, 2003, the rule revision was submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP); however, until the U.S. EPA approves the revision to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- d. The application and enforcement of the provisions of the New Source Performance Standards (NSPS), as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60, are delegated to the Ohio Environmental Protection Agency. The requirements of 40 CFR Part 60 are also federally enforceable.
- e. The current auxiliary boiler (B005) will be removed and decommissioned from service once the four new fire tube boilers (B010-B013) are fully operational and in compliance with the terms and conditions of this permit.
- f. This permit establishes the following federally enforceable emission limitations for purposes of establishing the facility as a minor source for attainment New Source Review:
 - i. 17.6 tons NOx per rolling, 12-month period from emissions units B010, B011, B012 and B013, combined; and
 - ii. 39.76 tons SO2 per rolling, 12-month period from emissions units B010, B011, B012 and B013, combined.

These emission limitations are based on the fuel usage restrictions in c)(3) below for the purpose of establishing federally enforceable emission limitations to avoid "Prevention of Significant Deterioration" (PSD) applicability.

c) Operational Restrictions

- (1) The permittee shall burn only No. 2 fuel oil or biodiesel fuel in this emissions unit.
- (2) The quality of No. 2 fuel oil received for burning in this emissions unit shall have a combination of sulfur content and heat content sufficient to comply with the allowable SO2 emission limitation of 0.37 lb/mmBtu of actual heat input and a sulfur content limit of less than or equal to 0.35 percent sulfur, by weight.
- (3) The maximum No. 2 fuel oil and biodiesel fuel usage for emissions units B010, B011, B012 and B013, combined, shall not exceed 1,600,000 gallons per year, based upon a rolling, 12-month summation of the monthly fuel usage.

To ensure enforceability during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the fuel usage levels specified in the following table:

Maximum Allowable Cumulative Usage	
Month(s)	of No. 2 fuel oil and/or biodiesel fuel (gallons)



1	200,000
1-2	400,000
1-3	600,000
1-4	800,000
1-5	900,000
1-6	1,000,000
1-7	1,100,000
1-8	1,200,000
1-9	1,300,000
1-10	1,400,000
1-11	1,500,000
1-12	1,600,000

After the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, compliance with the annual fuel usage limitation for No. 2 fuel oil and biodiesel fuel shall be based upon a rolling, 12-month summation of the monthly emissions.

d) Monitoring and/or Recordkeeping Requirements

(1) 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, and the quality of the oil for those loads 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, ASTM methods D240 and D4294), or equivalent methods as approved by the Director.

- (2) The permittee shall maintain monthly records of the following information:
 - a. the production rate for each month; and
 - b. beginning after the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the rolling, 12-month summation of the production rates.

Also, during the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, the permittee shall record the cumulative production rate for each calendar month.

e) Reporting Requirements

- (1) The permittee shall notify the Portsmouth Local Air Agency in writing of any record that shows a deviation of the allowable SO₂ emission limitation and/or sulfur content limitation based upon the calculated SO₂ emission rates from d)(1) above. The notification shall include a copy of such record and shall be sent to the Portsmouth Local Air Agency within 45 days after the deviation occurs.
- (2) The permittee shall notify the Portsmouth Local Air Agency in writing of any fuel burned in this emissions unit other than biodiesel fuel or No. 2 fuel oil. The notification shall include a copy of such record and shall be sent to the Portsmouth Local Air Agency within 45 days after the deviation occurs.
- (3) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month production rate limitation; and for the first 12 calendar months of operation or the first 12 calendar months following the issuance of this permit, all exceedances of the maximum allowable cumulative production rate levels. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.
- (4) Unless otherwise specified, the deviation reports shall be submitted in accordance with the reporting requirements of the Standard Terms and Conditions of this permit.
- (5) The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month emission limitation for PE, PM₁₀, PM_{2.5}, CO, NO_x, and SO₂. These reports shall be submitted in accordance with the reporting requirements specified in the Standard Terms and Conditions of this permit.



f) Testing Requirements

(1) Compliance with the emission limitations in b)(1) and b)(2) shall be determined in accordance with the following methods:

a. Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

Applicable Compliance Method:

If required, compliance shall be determined in accordance with Test Method 9, as set forth in "Appendix on Test Methods" in 40 CFR Part 60 ("Standards of Performance for New Stationary Sources"), as such Appendix existed on July 1, 2002.

b. Emission Limitations:

PE/PM10 emissions shall not exceed 0.02 lb/mmBtu of actual heat input and 1.08 pounds per hour.

Applicable Compliance Methods:

For the use of No. 2 fuel oil and biodiesel fuel, the short term emission limitations are based upon the emission unit's potential to emit and the manufacturer's guaranteed emissions data as provided in PTI application 07-00595 submitted on May 20, 2008.

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

c. Emission Limitation:

The maximum total annual PE from emissions units B010, B011, B012 and B013, combined, shall not exceed 1.60 tons per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the 1.60 tons per year annual PE limitation shall be demonstrated by the following equation:

$$PE_{tpy} = (0.002 \text{ lb PE/gallon No. 2 fuel oil}) \times (1,600,000 \text{ gallons/yr}) / (2000 \text{ lbs/ton})$$

where:

PE_{tpy} = the maximum total annual emissions of PE, in tpy;

0.002 = PE emission factor when firing No. 2 fuel oil;



1,600,000 = maximum annual combined fuel usage; and

2000 = conversion factor from lbs to ton.

The PE emission factor of 0.002 lb PE/gallon No. 2 fuel oil was obtained from AP42, Section 1.3, Table 1.3-1, dated September, 1998.

d. Emission Limitation:

The maximum total annual PM10 emissions from emissions units B010, B011, B012 and B013, combined, shall not exceed 0.80 ton per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the 0.80 ton per year annual PM10 emission limitation shall be demonstrated by the following equation:

$$PM10_{tpy} = (0.001 \text{ lb PM10/gallon No. 2 fuel oil}) \times (1,600,000 \text{ gallons/yr}) / (2000 \text{ lbs/ton})$$

where:

$PM10_{tpy}$ = the maximum total annual emissions of PM10, in tpy;

0.001 = PM10 emission factor when firing No. 2 fuel oil;

1,600,000 = maximum annual combined fuel usage; and

2000 = conversion factor from lbs to ton.

The PM10 emission factor of 0.001 lb PM10/gallon No. 2 fuel oil was obtained from AP42, Section 1.3, Table 1.3-6, dated September, 1998.

e. Emission Limitation:

The maximum total annual PM2.5 emissions from emissions units B010, B011, B012 and B013, combined, shall not exceed 0.20 ton per year as a rolling, 12-month summation.

Applicable Compliance Method:

Compliance with the 0.20 ton per year annual PM2.5 emission limitation shall be demonstrated by the following equation:

$$PM2.5_{tpy} = (0.00025 \text{ lb PM2.5/gallon No. 2 fuel oil}) \times (1,600,000 \text{ gallons/yr}) / (2000 \text{ lbs/ton})$$

where:

$PM2.5_{tpy}$ = the maximum total annual emissions of PM2.5, in tpy;

0.00025 = PM2.5 emission factor when firing No. 2 fuel oil;



1,600,000 = maximum annual combined fuel usage; and

2000 = conversion factor from lbs to ton.

The PM2.5 emission factor of 0.00025 lb PM2.5/gallon No. 2 fuel oil was obtained from AP42, Section 1.3, Table 1.3-6, dated September, 1998.

f. Emission Limitations:

SO2 emissions shall not exceed 0.37 lb/mmBtu of actual heat input, 25.35 pounds per hour and 39.76 tons per year as a rolling, 12-month summation.

Applicable Compliance Methods:

For the use of No. 2 fuel oil and biodiesel fuel, the short term emission limitations are based upon the emission unit's potential to emit and the manufacturer's guaranteed emissions data as provided in PTI application 07-00595 submitted on May 20, 2008.

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

Compliance with the 39.76 tons per year annual emission limitation shall be demonstrated by the following equation:

$$SO_2 \text{ tpy} = (0.0497 \text{ lb } SO_2/\text{gallon No. 2 fuel oil}) \times (1,600,000 \text{ gallons/yr}) / (2000 \text{ lbs/ton})$$

where:

SO₂ tpy = the maximum total annual emissions of SO₂, in tpy;

0.0497 = SO₂ emission factor when firing No. 2 fuel oil;

1,600,000 = maximum annual combined fuel usage; and

2000 = conversion factor from lbs to ton.

The SO₂ emission factor of 0.0497 lb SO₂/gallon No. 2 fuel oil was obtained from AP42, Section 1.3, Table 1.3-1, dated September, 1998.

g. Emission Limitations:

NOx emissions shall not exceed 0.18 lb/mmBtu of actual heat input, 13.42 pounds per hour and 17.60 tons per year as a rolling, 12-month summation.

Applicable Compliance Methods:

For the use of No. 2 fuel oil and biodiesel fuel, the short term emission limitations are based upon the emission unit's potential to emit and the manufacturer's guaranteed emissions data as provided in PTI application 07-00595 submitted on May 20, 2008.



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

Compliance with the 17.60 tons per year annual emission limitation shall be demonstrated by the following equation:

$$\text{NO}_x \text{ tpy} = (0.022 \text{ lb NO}_x/\text{gallon biodiesel fuel}) \times (1,600,000 \text{ gallons/yr}) / (2000 \text{ lbs/ton})$$

where:

$\text{NO}_x \text{ tpy}$ = the maximum total annual emissions of NO_x , in tpy;

0.022 = NO_x emission factor when firing biodiesel fuel;

1,600,000 = maximum annual combined fuel usage; and

2000 = conversion factor from lbs to ton.

The NO_x emission factor of 0.022 lb NO_x /gallon biodiesel fuel was obtained by increasing the NO_x emission factor from AP42, Section 1.3, Table 1.3-1, dated September, 1998 by 10%. It is assumed that NO_x emissions from biodiesel fuel would be 10% higher than NO_x emissions from No. 2 fuel oil.

h. Emission Limitations:

CO emissions shall not exceed 0.04 lb/mmBtu of actual heat input, 2.68 pounds per hour and 4.00 tons per year as a rolling, 12-month summation.

Applicable Compliance Methods:

For the use of No. 2 fuel oil and biodiesel fuel, the short term emission limitations are based upon the emission unit's potential to emit and the manufacturer's guaranteed emissions data as provided in PTI application 07-00595 submitted on May 20, 2008.

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

Compliance with the 4.00 tons per year annual emission limitation shall be demonstrated by the following equation:

$$\text{CO tpy} = (0.005 \text{ lb CO/gallon No. 2 fuel oil}) \times (1,600,000 \text{ gallons/yr}) / (2000 \text{ lbs/ton})$$

where:

CO tpy = the maximum total annual emissions of CO, in tpy;

0.005 = CO emission factor when firing No. 2 fuel oil;



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1,600,000 = maximum annual combined fuel usage; and

2000 = conversion factor from lbs to ton.

The CO emission factor of 0.005 lb CO/gallon No. 2 fuel oil was obtained from AP42, Section 1.3, Table 1.3-1, dated September, 1998.

(2) Compliance with the sulfur limitations in c)(2) shall be demonstrated by the record keeping requirements specified in d)(1).

g) Miscellaneous Requirements

(1) None.