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Facility Name: **Biomass Energy, LLC**

Application Number: **07-457**

Date: **July 15, 1998**

**GENERAL PERMIT CONDITIONS**

TERMINATION OF PERMIT TO INSTALL

Substantial construction for installation must take place within 18 months of the effective date of this permit. 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.

NOTICE OF INSPECTION

The Director of the Ohio Environmental Protection Agency, or his authorized representatives, may enter upon the premises of the above-named applicant during construction and operation at any reasonable time for the purpose of making inspections, conducting tests, or to examine records or reports pertaining to the construction, modification or installation of the source(s) of environmental pollutants identified within this permit.

CONSTRUCTION OF NEW SOURCE(S)

The proposed source(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources are inadequate or cannot meet applicable standards.

If the construction of the proposed source(s) has already begun or has been completed prior to the date the Director of the Ohio Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of Ohio Administrative Code

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(OAC) Rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install 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 prove to be inadequate or cannot meet applicable standards.

#### PERMIT TO INSTALL FEE

In accordance with Ohio Revised Code 3745.11, the specified Permit to Install fee must be remitted within 15 days of the effective date of this permit to install.

#### 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.

#### APPLICABILITY

This Permit to Install is applicable only to the contaminant sources identified. Separate application must be made to the Director for the installation or modification of any other contaminant sources.

#### BEST AVAILABLE TECHNOLOGY

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

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PERMIT TO OPERATE APPLICATION

A Permit to Operate application must be submitted to the appropriate field office for each air contaminant source in this Permit to Install. In accordance with OAC Rule 3745-35-02, the application shall be made at least 90 days prior to start-up of the source.

NINETY DAY OPERATING PERIOD

The facility will be permitted to operate during a 90-day period in accordance with OAC Rule 3745-35-02(C)(4)(b). The purpose of this period of operation is to fulfill the performance tests conditions used in the determination of compliance with the provisions of this Permit to Install or other applicable Ohio EPA rules.

SOURCE OPERATION AFTER COMPLETION OF CONSTRUCTION

This facility is permitted to operate each source described by this permit to install for period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies.

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
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AIR EMISSION SUMMARY

The air contaminant emissions units listed below comprise the Permit to Install for **Biomass Energy, LLC** located in **Lawrence** County. The emissions units listed below shall not exceed the emission limits/control requirements contained in the table. This condition in no way limits the applicability of any other state or federal regulations. Additionally, this condition does not limit the applicability of additional special terms and conditions of this permit.

B004

Ohio  
EPA  
Source  
Number

B001

B002

B003

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
B006	B007		Source Identification Description	175 MM BTU/hour coke oven
B005			175 MM BTU/hour wood and coal fired boiler	gas fired boiler

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
hour wood and coal fired boiler	175 MMBTU/ hour wood and coal fired boiler	175 MMBTU/ hour coke oven gas fired boiler		
				<u>BAT Determination</u>
				Baghouse; selective catalytic No <sub>x</sub> reduction; SO <sub>2</sub> sodium bicarbonate injection
			175 MMBTU/ hour wood and coal fired boiler	
	175 MMBTU/ wood and coal fired boiler			

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
Selective catalytic reduction; SO <sub>2</sub> sodium bicarbonate injection	Baghouse; selective catalytic reduction; SO <sub>2</sub> sodium bicarbonate injection	Baghouse; selective catalytic reduction; SO <sub>2</sub> sodium bicarbonate injection	Selective catalytic reduction; SO <sub>2</sub> sodium bicarbonate injection	Baghouse; selective catalytic No <sub>x</sub> reduction; SO <sub>2</sub> sodium bicarbonate injection

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
		3745-17-10	3745-31-05	3745-31-05
Baghouse; selective catalytic reduction; SO <sub>2</sub> sodium bicarbonate injection	Applicable Federal & <u>OAC Rules</u> 3745-31-05	3745-18-50 3745-31-05		
		3745-17-07	3745-17-07	3745-17-07
	3745-17-07			
		3745-17-10	3745-17-10	3745-17-10
		40 CFR Part 60 Subpart Db	3745-18-50	3745-18-50 3745-31-05

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
				(See Note 1 below)
			Permit Allowable Mass Emissions and/or Control/Usage Requirements	(See Note 1 below)
3745-17-07	3745-17-07	3745-17-07	0.015 pound PM/PM <sub>10</sub> per MMBTU of actual heat input	0.01 pound PM/PM <sub>10</sub> per MMBTU of actual heat input
	3745-17-07		11.5 TPY PM/PM <sub>10</sub> ;	7.7 TPY PM/PM <sub>10</sub> ;
			0.036 pound No <sub>x</sub> per MMBTU of actual heat input	0.15 pound No <sub>x</sub> per MMBTU of actual heat input
			27.48 TPY No <sub>x</sub> ;	112.13 TPY No <sub>x</sub> ;
			0.19 pound SO <sub>2</sub> per MMBTU of actual heat input	0.05 pound SO <sub>2</sub> per MMBTU of actual heat input
			144.38 TPY SO <sub>2</sub> ;	38.33 TPY SO <sub>2</sub> ;
			0.004 pound CO per MMBTU of actual heat input	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.
3745-17-10	3745-17-10	3745-17-10	3.17 TPY CO	
	3745-17-10			
40 CFR Part 60 Subpart Db	3745-18-50	3745-18-50	Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.	(See Note 1 below)
	3745-31-05			
3745-31-05				(See Note 2 below)

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<u>Ohio EPA Source Number</u>	<u>Source Identification Number</u>	<u>BAT Determination</u>	<u>Applicable Federal &amp; OAC Rules</u>	<u>Permit Allowable Mass Emissions and/or Control/Usage Requirements</u>
0.015 pound PM/PM <sub>10</sub> per MMBTU of actual heat input 11.5 TPY PM/PM <sub>10</sub> ; 0.036 pound No <sub>x</sub> per MMBTU of actual heat input 27.48 TPY No <sub>x</sub> ; 0.19 pound SO <sub>2</sub> per MMBTU of actual heat input 148.38 TPY SO <sub>2</sub> ; 0.004 pound CO per MMBTU of	actual heat input 3.17 TPY CO  Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.  (See Note 1 below)	0.004 pound CO per MMBTU of actual heat input 3.17 TPY CO  Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.  (See Note 1 below)	(See Note 2 below)  0.015 pound PM/PM <sub>10</sub> per MMBTU of actual heat input 11.5 TPY PM/PM <sub>10</sub> ; 0.036 pound No <sub>x</sub> per MMBTU of actual heat input 27.48 TPY No <sub>x</sub> ; 0.19 pound SO <sub>2</sub> per MMBTU of actual heat input 144.38 TPY SO <sub>2</sub> ; 0.004 pound CO per MMBTU of actual heat input 3.17 TPY CO  Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.  (See Note 1 below)	(See Note 2 below)  0.015 pound PM/PM <sub>10</sub> per MMBTU of actual heat input 11.5 TPY PM/PM <sub>10</sub> ; 0.036 pound No <sub>x</sub> per MMBTU of actual heat input 32.96 TPY No <sub>x</sub> ; 0.19 pound SO <sub>2</sub> per MMBTU of actual heat input 144.38 TPY SO <sub>2</sub> ; 0.004 pound CO per MMBTU of actual heat input 3.17 TPY CO  Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.  (See Note 1 below)
	(See Note 1 below)	0.01 pound PM/PM <sub>10</sub> per MMBTU of actual heat input 7.7 TPY PM/PM <sub>10</sub> ; 0.15 pound No <sub>x</sub> per MMBTU of actual heat input 112.13 TPY No <sub>x</sub> ; 0.05 pound SO <sub>2</sub> per MMBTU of actual heat input 38.33 TPY SO <sub>2</sub> ;  Visible particulate emissions from the baghouse stack shall not exceed 20 percent opacity as a six minute average.  (See Note 1 below)		(See Note 2 below)

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below)

Note 1 - The requirements of this rule are less stringent than the requirements of OAC rule 3745-31-05.

Note 2 - No PM, SO<sub>2</sub>, or NO<sub>x</sub> emissions limits are required for Coke Oven Gas Fired Boilers in 40 CFR Part 60, Subpart Db.

SUMMARY  
 TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons/Year</u>	<u>Net Increase Tons/Year</u>
PM/PM <sub>10</sub>	72.9	11.92
NO <sub>x</sub>	361.66	-1257.7
SO <sub>2</sub>	798.56	-4806.13
CO	15.85	15.85

**CONSTRUCTION STATUS**

The **Portsmouth Air Pollution Group** shall be notified in writing as to (a) the construction starting date, (b) the construction completion date, and (c) the date the facilities were placed into operation for the following sources: **B001, B003, B004, B006 and B007**.

**NSPS REQUIREMENTS**

The following sources are subject to the applicable provisions of the New Source Performance Standards (NSPS) as promulgated by the United States Environmental Protection Agency, 40 CFR Part 60.

Source  
Number      B002

B005

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<u>Source</u>	<u>NSPS Regulation (Subpart)</u>
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<u>Descriptio</u>	<u>n</u>
	Db
Boile	Db
r	
Boile	
r	

The application and enforcement of these standards are delegated to the Ohio EPA. The requirements of 40 CFR Part 60 are also federally enforceable.

Pursuant to the NSPS, the source owner/operator is hereby advised of the requirement to report the following at the appropriate times:

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

Reports are to be sent to:

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

and **Portsmouth City Health Department - DAPC**  
**740 Second Street**  
**Portsmouth, OH 45662**

**PERFORMANCE TEST REQUIREMENTS**

The permittee shall conduct, or have conducted, performance testing on the air contaminant source(s) in accordance with procedures approved by the Agency. Two copies of the written report describing the test procedures followed and the results of such tests shall be submitted and signed by the person responsible for the test. The Director, or an Ohio EPA representative, shall be allowed to witness the test, examine

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testing equipment, and require the acquisition or submission of data and information necessary to assure that the source operation and testing procedures provide a valid characterization of the emissions from the source and/or the performance of the control equipment.

- A. A completed Intent to Test form shall be submitted to the appropriate Ohio EPA District Office or Local Air Pollution Control Agency where the original permit application was filed. This notice shall be made 30 days in advance and shall specify the source operating parameters, the proposed test procedures, and the time, date, place and person(s) conducting such tests.
- B. Two copies of the test results shall be submitted within 30 days after the completion of the performance test.
- C. Tests shall be performed for the following source(s) and pollutants(s):

**Source**

**Pollutant(s)**

**B001, B003,  
B004, B006,  
and B007**

**PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO**

**B002 and B005**

**PM/PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>**

**MONITORING REQUIREMENTS**

A **SO<sub>2</sub>, NO<sub>x</sub>, and opacity monitor** shall be installed on the **B001, B003, B004, B006 and B007**. The monitoring equipment shall be installed and maintained in accordance with the applicable portions of 40 CFR part 60 - Standards of Performance for New Stationary Sources.

Within 30 days after the installation of the continuous monitoring and recording equipment, this facility shall conduct a performance specification test of such equipment pursuant to Section 3704.03(I) of the Ohio Revised Code and 40 CFR Part 60, Appendix B, Performance Specification Test 1. Personnel from the Ohio EPA field office shall be permitted to witness the performance specification test, and two copies of the test results shall be submitted to the Ohio EPA field office within 45

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days after the test is completed.

Pursuant to 40 CFR Parts 60.7 and 60.13(h), this facility shall submit reports on a quarterly basis to the Ohio EPA field office documenting all instances of opacity values in excess of the limitations specified in OAC rule 3745-17-07 or any limitations specified in the terms and conditions of this permit. These quarterly excess emission reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the data obtained during the previous calendar quarters.

#### **RECORD(S) RETENTION AND AVAILABILITY**

All records required by this Permit to Install shall be retained on file for a period of not less than three years unless otherwise indicated by Ohio Environmental Protection Agency. All records

shall be made available to the Director, or any representative of the Director, for review during normal business hours.

#### **REPORTING REQUIREMENTS**

Unless otherwise specified, reports required by the Permit to Install need only be submitted to **Portsmouth Air Pollution Group, 740 Second Street, Portsmouth, OH 45662.**

#### **WASTE DISPOSAL**

The owner/operator shall comply with any applicable state and federal requirements governing the storage, treatment, transport and disposal of any waste material generated by the operation of the sources.

#### **MAINTENANCE OF EQUIPMENT**

This source and its associated air pollution control system(s) shall be maintained regularly in accordance with good engineering practices and the recommendations of the respective manufacturers in order to minimize air contaminant emissions.

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**MALFUNCTION/ABATEMENT**

In accordance with OAC RULE 3745-15-06, any malfunction of the source(s) or associated air pollution control system(s) shall be reported immediately to the **Portsmouth Air Pollution Group, 740 Second Street, Portsmouth, OH 45662..**

Except as provided by OAC Rule 3745-15-06(A)(3), scheduled maintenance of air pollution control equipment that requires the shutdown or bypassing of air pollution control system(s) must be accompanied by the shutdown of the associated air pollution sources.

**AIR POLLUTION NUISANCES PROHIBITED**

The air contaminant source(s) identified in this permit may not cause a public nuisance in violation of OAC Rule 3745-15-07.

**CONSTRUCTION COMPLIANCE CERTIFICATION**

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

**ADDITIONAL SPECIAL TERMS AND CONDITIONS**

**A. Operational Restrictions**

1. The following requirements apply to emissions units B001, B003, B004, B006, B007.
  - a. The maximum annual production rate for these emissions units shall not exceed 12665 tons per year maximum coal usage per boiler, based upon a rolling, 12 month summation of the production rates.

To ensure enforceability during the first 12 calendar months of operation following the

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issuance of this permit, the permittee shall not exceed the production levels specified in the following table:

<u>Production</u>	<u>Month</u>	<u>Maximum Allowable Cumulative</u>
	1	1055
	1-2	2111
	1-3	3166
	1-4	4222
	1-5	5277
	1-6	6333
	1-7	7388
	1-8	8443
	1-9	9499
	1-10	10554
	1-11	11610
	1-12	12665

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual production rate limitation shall be based upon a rolling, 12 month summation of the production rates.

- b. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop across the baghouse while the emissions unit is in operation.

The monitoring equipment shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations, instructions, and operating manual(s). The permittee shall record the pressure drop across the baghouse on a daily basis.

The pressure drop across the baghouse shall be maintained within a range of inches of water while the emissions unit is in operation. The number of

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inches of water shall be determined during the initial stack test for these emission units.

The permittee shall submit pressure drop deviation (excursion) reports that identify that all periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above. These excursion reports shall be submitted on a quarterly basis and shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter. Even if no excursions have occurred during a calendar quarter, a quarterly report shall still be submitted stating that no excursions have occurred.

## **B. Certification**

1. The following requirements apply to emissions units B001, B003, B004, B006, B007.
  - a. Prior to the installation of the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site(s) in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system pursuant to ORC Section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the Portsmouth Air Pollution Group shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Portsmouth Air Pollution Group within 30 days after the test is completed. Copies of the test results shall be sent to the Portsmouth Air Pollution Group and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring

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system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

- b. Prior to the installation of the continuous opacity monitoring system, the permittee shall submit information detailing the proposed location of the sampling site in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 1 for approval by the Ohio EPA, Central Office.

Within 60 days of the effective date of this permit, the permittee shall conduct certification tests on the continuous opacity monitoring system equipment pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 1. Personnel from the Portsmouth Air Pollution Group shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. Two copies of the test results shall be submitted to the Portsmouth Air Pollution Group pursuant to OAC rule 3745-15-04 within 30 days after the test is completed. Certification of the continuous opacity monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I), and 40 CFR Part 60, Appendix B, Performance Specification 1 including section 5.1.9 (mandatory).

2. The following requirements apply to emissions units B002 and B005.
  - a. Prior to the installation of the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system, the permittee shall submit information detailing the proposed location of the sampling site(s) in accordance with the siting requirements in 40 CFR Part 60, Appendix B, Performance Specification 6 for SO<sub>2</sub>, NO<sub>x</sub>, for approval by the Ohio EPA, Central Office.

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Within 60 days of the effective date of this permit, the permittee shall conduct certification tests of the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system pursuant to ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6. Personnel from the Portsmouth Air Pollution Group shall be notified 30 days prior to initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Portsmouth Air Pollution Group within 30 days after the test is completed. Copies of the test results shall be sent to the Portsmouth Air Pollution Group and the Ohio EPA, Central Office. Certification of the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 6.

### **C. Monitoring and Recordkeeping**

1. The following requirements apply to emissions units B001, B003, B004, B006 and B007.
  - a. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub>, NO<sub>x</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub>, NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub>, NO<sub>x</sub> in units of the applicable standard on a 30-day rolling period basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

- b. Within 60 days of the effective date of this permit or modification to the system, the

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permittee shall operate and maintain the continuous opacity monitoring system equipment to continuously monitor and record the opacity of the particulate emissions from this emissions unit. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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

- c. The permittee shall maintain monthly records of the following information to comply with the coal usage limitation as described in section 1.a. above:
  - i. the production rate for each month; and,
  - ii. beginning after the first 12 calendar months of operation following the issuance of this permit, the rolling, 12-month summation of the production rates.

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

- d. If coal sampling and analysis is used to demonstrate compliance with the SO<sub>2</sub> emission limitation, the permittee shall maintain monthly records of the total quantity of coal received, and the results of the analyses for ash content, sulfur content, and heat content in accordance with the following:

The permittee shall collect a representative sample of each shipment of coal which is received for burning. The coal sampling shall be performed in accordance with ASTM method D2234, Collection

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of a Gross Sample of Coal. At the end of each calendar month, the representative samples of coal from all shipments of coal which were received during that calendar month shall be combined into one composite sample.

Each monthly composite sample of coal shall be analyzed for ash content (percent), sulfur content (percent), and heat content (Btu/pound of coal). The analytical methods for ash content, sulfur content and heat content shall be: ASTM method D3174, Ash in the Analysis of Coal and Coke; ASTM method D3177, Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D2015, Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, ASTM method D3286, Gross Calorific Value of Coal and Coke by the Isothermal Bomb Calorimeter, or ASTM method D1989, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isooperibol Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval from the Portsmouth Air Pollution Group.

2. The following requirements apply to emissions units B002 and B005.
  - a. The permittee shall operate and maintain equipment to continuously monitor and record SO<sub>2</sub>, NO<sub>x</sub> from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system including, but not limited to, parts per million SO<sub>2</sub>, NO<sub>x</sub> on an instantaneous (one-minute) basis, emissions of SO<sub>2</sub>, NO<sub>x</sub> in units of the applicable standard on a 30-day rolling period basis, results of daily zero/span calibration checks, and magnitude of manual calibration

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adjustments.

- b. The permittee shall maintain weekly coke oven gas "as received" analysis.

Coke oven gas sampling shall be performed in accordance with the most recent version of ASTM Method D1247-54, "Sampling Manufactured".

The hydrogen sulfide content and heat content of the coke oven gas burned will be used as input into an equation to calculate the sulfur dioxide emission rate in terms of pounds per million BTU actual heat input.

Records of the coke oven gas analysis shall be retained on site for a period of not less than five years from the date the data was generated and shall be made available to Ohio EPA personnel anytime during normal business hours.

**D. Reporting**

1. The following requirements apply to emissions units B001, B003, B004, B006 and B007.
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Air Pollution Group documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub>, NO<sub>x</sub> values in excess of the applicable limits specified in this permit to install the 30-day rolling, weighted average SO<sub>2</sub>, NO<sub>x</sub> emission rates, and the average daily SO<sub>2</sub>, NO<sub>x</sub> emission rates in units of the applicable standard(s). These reports shall also contain the total SO<sub>2</sub>, NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the

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Portsmouth Air Pollution Group documenting any continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the 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, control equipment, and/or 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 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

If a computerized data acquisition system is installed, then pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60 section 60.7. The summary shall be submitted to the Portsmouth Air Pollution Group within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

- b. Pursuant to 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Air Pollution Group documenting all instances of opacity values in excess of the

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limitations specified in OAC rule 3745-17-07, detailing the date, commencement and completion times, duration, magnitude (percent opacity), reason (if known), and corrective actions taken (if any) of each 6-minute block average above the applicable opacity limitation(s).

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the 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, control equipment, and/or 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 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

- c. The permittee shall submit quarterly deviation (excursion) reports to comply with the coal usage limitation as described in section 1.a. above that identify all exceedances of the rolling, 12-month production rate limitation and, for the first 12 calendar months of operation following the

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issuance of this permit, all exceedances of the maximum allowable cumulative production levels. These reports are due by January 31, April 30, July 31 and October 31 and should include data from the previous quarter. Even if there are no deviations during a quarter, a quarterly report should still be submitted stating that there were no deviations.

- d. If required, quarterly reports shall be submitted concerning the quality and quantity of coal received for burning in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:
  - i. the total quantity of coal received (tons);
  - ii. the average ash content (percent) of the coal received;
  - iii. the average sulfur content (percent) of the coal received;
  - iv. the average heat content (Btu/pound) of the coal received; and,
  - v. the average sulfur dioxide emissions rate (pounds sulfur dioxide/MMBTU actual heat input) from the coal received.

These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall cover the data obtained during the previous calendar quarters.

2. The following requirements apply to emissions units B002 and B005.
  - a. Pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031 and 40 CFR Parts 60.7 and 60.13(h), the permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Air

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Pollution Group documenting the date, commencement and completion times, duration magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO<sub>2</sub>, NO<sub>x</sub> values in excess of the applicable limits specified OAC in this permit to install the 30-day rolling, weighted average SO<sub>2</sub>, NO<sub>x</sub> emission rates, and the average daily SO<sub>2</sub>, NO<sub>x</sub> emission rates in units of the applicable standard(s). These reports shall also contain the total SO<sub>2</sub>, NO<sub>x</sub> emissions for the calendar quarter (in tons).

The permittee shall submit reports within 30 days following the end of each calendar quarter to the Portsmouth Air Pollution Group documenting any continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the 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, control equipment, and/or 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 31, April 30, July 31, and October 31 of each year and shall address the data obtained during the previous calendar quarter.

If a computerized data acquisition system is

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installed, then pursuant to OAC rules 3745-15-04, 3745-35-02, and ORC sections 3704.03(I) and 3704.031, the permittee shall submit a summary of the excess emission report pursuant to 40 CFR Part 60 section 60.7. The summary shall be submitted to the Portsmouth Air Pollution Group within 30 days following the end of each calendar quarter in a manner prescribed by the Director.

**E. Quality Assurance**

1. The following requirements apply to emission units B001, B003, B004, B006, and B007.
  - a. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>, NO<sub>x</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.
  - b. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous opacity monitoring system designed to ensure continuous valid and representative readings of opacity. The plan shall include, as a minimum, conducting and recording daily automatic zero/span checks, provisions for conducting a quarterly audit of the continuous opacity monitoring system, and a description of preventive maintenance activities. The plan shall describe step by step procedures for ensuring that sections 7.1.4, 7.4.1, 7.4.2, and Table 1-1 of Performance Specification 1 are maintained on a continuous basis. The quality assurance/quality control plan and a logbook dedicated to the continuous opacity

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monitoring system must be kept on site and available for inspection during regular office hours.

2. The following requirements apply to emissions units B002 and B005.
  - a. Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system designed to ensure continuous valid and representative readings of SO<sub>2</sub>, NO<sub>x</sub>. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook dedicated to the continuous SO<sub>2</sub>, NO<sub>x</sub> monitoring system must be kept on site and available for inspection during regular office hours.

**F. Testing Requirements and Compliance Methods**

1. The following requirements apply to emission units B001, B003, B004, B006 , and B007.
  - a. Emission Limit  
  
0.015 LB/MMBTU actual heat input PM/PM<sub>10</sub>;  
11.5 TPY PM/PM<sub>10</sub>  
  
Applicable Compliance Method  
  
USEPA Test Method 5 of 40 CFR Part 60, Appendix A.
  - b. Emission Limit  
  
0.19 LB/MMBTU actual heat input SO<sub>2</sub>; 144.38 TPY  
  
Applicable Compliance Method  
  
USEPA Test Method 6 of 40 CFR Part 60, Appendix A.
  - c. Emission Limit

SO<sub>2</sub>

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NO<sub>x</sub> 0.036 LB/MMBTU actual heat input NO<sub>x</sub>; 27.48 TPY

Applicable Compliance Method

USEPA Test Method 7 of 40 CFR Part 60, Appendix A.

d. Emission Limit

0.004 LB/MMBTU actual heat input CO; 3.17 TPY CO

Applicable Compliance Method

A. USEPA Test Method 10 of 40 CFR Part 60, Appendix

e. Emission Limit

20 percent opacity as a six minute average

Applicable Compliance Method

USEPA Method 9 of 40 CFR Part 60, Appendix A.

2. The following requirements apply to emissions units B002 and B005.

a. Emission Limit

0.01 LB/MMBTU actual heat input PM/PM<sub>10</sub>; 7.7 TPY PM/PM<sub>10</sub>

Applicable Compliance Method

USEPA Test Method 5 of 40 CFR Part 60, Appendix A.

b. Emission Limit

0.05 LB/MMBTU actual heat input SO<sub>2</sub>; 38.33 TPY SO<sub>2</sub>

Applicable Compliance Method

USEPA Test Method 6 of 40 CFR Part 60, Appendix A.

c. Emission Limit

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NO<sub>x</sub> 0.15 LB/MMBTU actual heat input NO<sub>x</sub>; 112.13 TPY

Applicable Compliance Method

USEPA Test Method 7 of 40 CFR Part 60, Appendix A.

d. Emission Limit

20 percent opacity as a six minute average

Applicable Compliance Method

USEPA Method 9 of 40 CFR Part 60, Appendix A.

- e. The exhaust of all units is combined and exits one stack after control. The total impact of all the units on this permit complied with the State Modeling Policy. Therefore, compliance testing shall be conducted with all the like-fueled units operating simultaneously. Compliance shall be demonstrated if the total of all the allowable emissions rates of all like-fueled units is not exceeded. A separate compliance demonstration is required for each fuel type, that is, a test is required for all coal/wood units combined and a separate test is required for all coke oven gas units combined.