

Facility ID: 1318002449 Issuance type: Final State Permit To Operate

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In addition to the terms and conditions, hyperlinks have been inserted into the document so you may more readily access the section of the document you wish to review.

Finally, the term language under "Part II" and before "A. Applicable Emissions Limitations..." has been added to aid in document conversion, and was not part of the original issued permit.

THIS IS NOT AN OFFICIAL VERSION OF THE PERMIT. SEE PAGE 1 FOR ADDITIONAL INFORMATION

Facility ID: 1318002449 Emissions Unit ID: B005 Issuance type: Final State Permit To Operate

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Part II - Special Terms and Conditions

This permit document constitutes a permit-to-install issued in accordance with ORC 3704.03(F) and a permit-to-operate issued in accordance with ORC 3704.03(G).

1. For the purpose of a permit-to-install document, the emissions unit terms and conditions identified below are federally enforceable with the exception of those listed below which are enforceable under state law only.
 - (a) None.
2. For the purpose of a permit-to-operate document, the emissions unit terms and conditions identified below are enforceable under state law only with the exception of those listed below which are federally enforceable.
 - (a) None.

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operation(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be employed. Additional applicable emissions limitations and/or control measures (if any) may be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
18.2 mmBtu/hr underfeed stoker coal-fired boiler, equipped with a multiclone dust collector	OAC rule 3745-31-05(A)(3)(PTI# 13-1054 issued July 20, 1983)	0.20 lb of particulate emissions per mmBtu of heat input
		2.5 lbs of sulfur dioxide emissions per mmBtu of heat input
	OAC rule 3745-17-07(A)	The requirements of this rule include compliance with the requirements of OAC rules 3745-17-07(A), and 3745-17-10(C)(7). Visible particulate emissions from the stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.
	OAC rule 3745-17-10(C)(7) OAC rule 3745-18-24(B)	See section B.2 below. The sulfur dioxide emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-35-07(B) FESOP to avoid Title V	See section A.2.a. and B.3.

2. **Additional Terms and Conditions**
 - (a) The sulfur dioxide emissions from this emissions unit shall not exceed 95.0 TPY as a rolling, 12-month summation.

B. Operational Restrictions

1. The permittee shall operate the multiclone dust collector for control of particulate emissions whenever this emissions unit is in operation.
2. The permittee shall operate the emissions unit in compliance with the following requirements, pursuant to OAC rule 3745-17-10(C)(7):
 - a. The fuel burning equipment identified in this permit shall be used exclusively for space heating purposes.
 - b. The coal received for use in the fuel burning equipment must have an ash content of less than 8.0 percent by weight and a heat content of greater than 13,000 Btu per pound. Ash content and heat content shall be determined on a dry basis in accordance with the procedures specified in paragraph (B)(9) of OAC rule 3745-17-03.
 - c. The use of flyash reinjection in the fuel burning equipment is prohibited.
 - d. The permittee shall employ an overfire air system which is designed, maintained and operated in accordance with good engineering practice and which minimizes visible particulate emissions from the fuel burning equipment.
 - e. The fuel burning equipment shall be operated and maintained in a manner which will optimize combustion efficiency and minimize visible particulate emissions.

3. The maximum annual coal usage rate for this emissions unit shall not exceed 2,714 tons, based upon a rolling, 12-month summation of the coal usage rates.

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 coal usage specified in the following table:

Maximum Allowable
Month Cumulative Coal Usage (Tons)

1 226
1-2 452
1-3 678
1-4 904
1-5 1130
1-6 1356
1-7 1582
1-8 1808
1-9 2034
1-10 2260
1-11 2486
1-12 2714

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

C. Monitoring and/or Record Keeping Requirements

1. The permittee shall maintain a boiler operations log to document operations that are exempt from the visible emissions limitations. These exempt operations are outlined in OAC rule 3745-17-07(A). This log shall clearly document the date, beginning time, and ending time of each exempted operation.
2. The permittee shall collect or require the coal supplier to collect a representative grab sample of each shipment of coal that is received for burning in this emissions unit. The permittee shall perform or require the supplier to perform the coal sampling (dry basis) in accordance with ASTM method D2234, Collection of a Gross Sample of Coal and analyze the coal sample 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 Isoperibol Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval by the Cleveland Division of Air Quality.
3. The permittee shall maintain records of the permittee or coal supplier's analysis (dry basis) for each shipment of coal received for burning in this emissions unit and shall include the following information:
 - a. the total quantity of coal received (tons),
 - b. the sulfur content (percent) of the coal,
 - c. the ash content (percent) of the coal,
 - d. the heat content (Btu per pound) of the coal, and
 - e. the calculated sulfur dioxide emission rate (pounds sulfur dioxide per mmBtu) calculated in accordance with OAC rule 3745-18-04(F)(1).
4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack and for any visible emissions of fugitive dust from the egress points (i.e., building windows, doors, roof monitors, etc.) serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:
 - a. the location and color of the emissions;
 - b. whether the emissions are representative of normal operations;
 - c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - d. the total duration of any visible emission incident; and
 - e. any corrective actions taken to minimize or eliminate the visible emissions.

If visible emissions are present, a visible emission incident has occurred. The observer does not have to document the exact start and end times for the visible emission incident under item (d) above or continue the daily check until the incident has ended. The observer may indicate that the visible emission incident was continuous during the observation period (or, if known, continuous during the operation of the emissions unit). With respect to the documentation of corrective actions, the observer may indicate that no corrective actions were taken if the visible emissions were representative of normal operations, or specify the minor corrective actions that were taken to ensure that the emissions unit continued to operate under normal conditions, or specify the corrective actions that were taken to eliminate abnormal visible emissions.

5. The permittee shall install, operate and maintain equipment to monitor the pressure drop across the multiclone dust collector 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 multiclone dust collector on daily basis.

6. The permittee shall maintain monthly records of the following information:
- the coal usage rate for each month;
 - the sulfur dioxide emission rate, in tons/month, calculated using the lb of sulfur dioxide/mmBtu value determined from C.3.e above and the actual coal usage rate; and
 - 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 coal usage rates and the rolling, 12-month summation of the sulfur dioxide emissions.

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 coal usage rate for each calendar month.

D. Reporting Requirements

- The permittee shall submit copies to the Cleveland Division of Air Quality (Cleveland DAQ) of the permittee's or coal supplier's analyses (dry basis) for each shipment of coal received for burning in this emissions unit. The total quantity of coal received in each shipment (tons) shall also be included with the copies of the permittee's or coal supplier's analyses.

These reports shall be submitted during January and July of each year and shall cover the coal shipments received during the previous semiannual period (July through December, and January through June, respectively). If no coal is received during any semi-annual period, the permittee shall submit a statement to that effect.
- The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to minimize or eliminate the visible particulate emissions. These reports shall be submitted to the Director (the Cleveland Division of Air Quality) by January 31 and July 31 of each year and shall cover the previous 6-month period.
- The permittee shall submit deviation (excursion) reports to the Cleveland DAQ that identify all exceedances of the rolling, 12-month coal usage rate limitation and/or the 12-month sulfur dioxide emission limit; 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 coal usage levels. These reports shall be submitted within 30 days after the exceedance occurs.

E. Testing Requirements

- Compliance with the emission limitations in Section A.1. of these terms and conditions shall be determined in accordance with the following methods:
Emission Limitation:
0.20 lb of particulate emissions per mmBtu actual heat input

Applicable Compliance Method:
Compliance shall be determined using U.S. EPA test methods 1-5 of 40 CFR Part 60 Appendix A.
Emission Limitation -
2.5 lbs of sulfur dioxide emissions per mmBtu of heat input

Applicable Compliance Method -
Compliance shall be based upon the record keeping and analysis requirements specified in section C and the use of the equation contained in OAC rule 3745-18-04(F)(1). The permittee shall demonstrate compliance with the lb of sulfur dioxide emissions per million Btu limitation in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6. The calculation from OAC rule 3745-18-04(F)(1) is as follows:

$$ER = (1,000,000)/H \times S \times 1.9$$

where:
ER = the emission rate in pounds of sulfur dioxide per MM Btu;
H = the heat content of the solid fuel in Btu per pound; and
S = the decimal fraction of sulfur in the solid fuel.
Emission Limitation -
Visible particulate emissions from the stack shall not exceed 20% opacity, as a 6-minute average, except as provided by rule.

Applicable Compliance Method -
Compliance shall be determined through visible emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).
Emission Limitation -
The sulfur dioxide emissions from this emissions unit shall not exceed 95 TPY as a rolling, 12-month summation.

Applicable Compliance Method -
Compliance shall be based upon the record keeping requirements specified in section C. of this permit and shall be the sum of the monthly emission rates for any rolling, 12-month period.
- The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - The emission testing shall be conducted within 6 months after permit issuance and within 6 months prior to permit renewal.
 - The emission testing shall be conducted to demonstrate compliance with the allowable mass emission rates for particulate and sulfur dioxide emissions.

c. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s): Method 1-5 of 40 CFR Part 60 Appendix A for particulate emissions; Method 9 for opacity; and Method 1-4 and 6 of 40 CFR Part 60 Appendix A for sulfur dioxide emissions. Alternative U.S. EPA approved test methods may be used with prior approval from the Ohio EPA.

d. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, unless otherwise specified or approved by the Cleveland Division of Air Quality.

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Cleveland DAQ. 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 Cleveland DAQ's refusal to accept the results of the emission test(s).

Personnel from the Cleveland DAQ 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 emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the Cleveland DAQ 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 Cleveland DAQ.

F. Miscellaneous Requirements

1. In accordance with the provisions of OAC Rule 3745-35-07, the following special terms and conditions of this permit to operate are federally enforceable: A -F.