



State of Ohio Environmental Protection Agency

RE: **DRAFT PERMIT TO INSTALL** **CERTIFIED MAIL**
GREENE COUNTY

Street Address:

Lazarus Gov. Center TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:
Lazarus Gov.
Center

Application No: 08-04162

DATE: 4/17/2001

Wright Patterson Air Force Base
Connie Strobbe
5490 Pearson Rd
WPAFB, OH 45433-5332

You are hereby notified that the Ohio Environmental Protection Agency has made a draft action recommending that the Director issue a Permit to Install for the air contaminant source(s) [emissions unit(s)] shown on the enclosed draft permit. This draft action is not an authorization to begin construction or modification of your emissions unit(s). The purpose of this draft is to solicit public comments on the proposed installation. A public notice concerning the draft permit will appear in the Ohio EPA Weekly Review and the newspaper in the county where the facility will be located. Public comments will be accepted by the field office within 30 days of the date of publication in the newspaper. Any comments you have on the draft permit should be directed to the appropriate field office within the comment period. A copy of your comments should also be mailed to Robert Hodanbosi, Division of Air Pollution Control, Ohio EPA, P.O. Box 1049, Columbus, OH, 43266-0149.

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$4800** will be due. Please do not submit any payment now.

The Ohio EPA is urging 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 Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Very truly yours,

Thomas G. Rigo
Field Operations and Permit Section
Division of Air Pollution Control

CC: USEPA RAPCA KY IN Miami Valley Reg Plan Com



Permit To Install

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Terms and Conditions**Issue Date: To be entered upon final issuance**
Effective Date: To be entered upon final issuance

DRAFT PERMIT TO INSTALL 08-04162

Application Number: 08-04162
APS Premise Number: 0829700441
Permit Fee: **To be entered upon final issuance**
Name of Facility: Wright Patterson Air Force Base
Person to Contact: Connie Strobbe
Address: 5490 Pearson Rd
WPAFB, OH 45433-5332

Location of proposed air contaminant source(s) [emissions unit(s)]:

5490 Pearson Rd
WPAFB, Ohio

Description of proposed emissions unit(s):

3 coal fired boilers area 20770 Chapter 31 replacing 08-185, 08-186, 08-187 issued 9-30-81; 3 coal fired boilers area 31240 Chapter 31 replacing 08-181, 08-182, 08-183 issued 9-30-81.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) 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 above described 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

Director

Wright Patterson Air Force Base

Facility ID: 0829700441

PTI Application: 08-04162

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Part I - GENERAL TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install General Terms and Conditions

1. Monitoring and Related Recordkeeping 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:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. 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:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. 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 appropriate Ohio EPA District Office or local air agency. The written reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.11 below if no deviations occurred during the quarter.

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- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the appropriate Ohio EPA District Office or local air agency every six months, i.e., 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.
- iv. 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.

2. 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 appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

3. 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.

4. 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.

5. Severability Clause

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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.

6. 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 reissuance, or modification, or for denial of a permit renewal application.
- 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, reopened, 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, reopening 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.

7. 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 this Permit To Install.

8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA, the State, and citizens under the Act. All other terms and conditions of this permit

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shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. 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.
 - ii. 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.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
 - i. Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - ii. 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.

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10. Permit To Operate Application

- a. If 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).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this Permit To Install is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. 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. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within thirty (30) days after commencing operation of the source(s) covered by this permit.

11. 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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B. State Only Enforceable Permit To Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements Related to Monitoring and Recordkeeping 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 appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., 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.)

3. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

4. 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.

5. Termination of Permit To Install

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This permit to install shall terminate within eighteen months of the effective date of the permit to install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. 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.

6. Construction of New Sources(s)

The proposed emissions unit(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 cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the 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 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 cannot meet the requirements of this permit or cannot meet applicable standards.

7. 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.

8. 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).

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9. 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.

10. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations (See Section A of This Permit)

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., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

C. Permit To Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Table with 2 columns: Pollutant and Tons Per Year. Rows include particulates (155), SO2 (2626), NOx (788), and CO (236.34).

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

A. State and Federally Enforceable Permit To Install Facility Specific Terms and Conditions

None

B. State Only Enforceable Permit To Install Facility Specific Terms and Conditions

None

Wright
PTI A

Emissions Unit ID: B309

Issued: To be entered upon final issuance

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> |
|---|---|
| B309 - 183 mmBtu/hour coal-fired spreader stoker boiler No. 4, with baghouse control limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2030) | 40 CFR Part 51, Appendix S OAC rules 3745-31-21 through 3745-31-27 |
| | OAC rule 3745-31-05(A)(3) |

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| | Applicable Emissions <u>Limitations/Control Measures</u> | B607, and B608 combined. |
|---------------------------|---|--|
| OAC rule 3745-17-07(A)(1) | Particulate emissions shall not exceed 0.10 lb/mmBtu actual heat input; Sulfur dioxide (SO2) emissions shall not exceed 2.00 lbs/mmBtu actual heat input; 155 tons particulate emissions, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. | 338 lbs/hour SO2 1135.68 TPY SO2 from this emissions unit with total combined SO2 emissions not to exceed 2626 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. Nitrogen oxide (NOx) emissions shall not exceed 0.6 lb/mmBtu actual heat input 336.54 TPY NOx from this emissions unit with total combined NOx emissions not to exceed 788 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. |
| OAC rule 3745-17-10(C)(1) | 2626 tons SO2, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. | Carbon monoxide (CO) emissions shall not exceed 0.18 lb/mmBtu actual heat input 105.17 TPY CO from this emissions unit with total combined CO emissions not to exceed 236.34 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. |
| OAC rule 3745-18-35(A) | The requirements of this rule also include compliance with the requirements of 40 CFR Part 51, Appendix S; OAC rules 3745-31-21 through 3745-31-27; and OAC rule 3745-17-07(A)(1). 16.9 lbs/hour particulate emissions 56.78 TPY particulate emissions from this emissions unit with total combined particulate emissions not to exceed 155 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, | Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule The emission limitation specified by this rule is less stringent than the emission |

limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The quality of coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.
2. This emissions unit shall be completely shutdown during the months of June, July, and August.
3. The maximum allowable total heat input for this emissions unit is limited to 169 mmBtu/hour. This total heat input of 169 mmBtu/hour corresponds to a steam load of 136,000 pounds per hour. At no time shall the steam flow rate from B309 exceed 136,000 pounds per hour (as an average over any one-hour period).
4. The maximum allowable total heat input for any two of emissions units B309, B310, and B311 combined is limited to 332 mmBtu/hour. This total combined heat input of 332 mmBtu/hour corresponds to a steam load of 265,600 pounds per hour. At no time shall the steam flow rate from any two of the boilers, identified as B309, B310, and B311, combined exceed 265,600 pounds per hour (as an average over any one-hour period).
5. The maximum allowable total heat input for the three boilers identified as B309, B310, and B311 combined is limited to 500 mmBtu/hour. This total combined heat input of 500 mmBtu/hour corresponds to a steam load of 400,000 pounds per hour. At no time shall the steam flow rate from all three boilers, identified as B309, B310, and B311, combined exceed 400,000 pounds per hour (as an average over any one-hour period).
6. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6.5 inches of water while the emissions unit is in operation.

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7. The maximum annual heat input for emissions units B309, B310, B311, B606, B607, and B608 combined shall not exceed 2,626,000 mmBtu, as a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following final issuance of this permit, the permittee shall not exceed the heat input levels from emissions units B309, B310, B311, B606, B607, and B608 combined specified in the following table:

Wright
PTI A

Emissions Unit ID: B309

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Maximum Allowable

| <u>Month(s)</u> | <u>Cumulative Heat Input (mmBtu)</u> |
|-----------------|--------------------------------------|
| 1 | 292,000 |
| 1 - 2 | 584,000 |
| 1 - 3 | 876,000 |
| 1 - 4 | 1,168,000 |
| 1 - 5 | 1,460,000 |
| 1 - 6 | 1,752,000 |
| 1 - 7 | 2,044,000 |
| 1 - 8 | 2,336,000 |
| 1 - 9 | 2,626,000 |
| 1 - 10 | 2,626,000 |
| 1 - 11 | 2,626,000 |
| 1 - 12 | 2,626,000 |

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined shall be based upon a rolling, 12-month summation of the heat inputs.

III. Monitoring and/or Recordkeeping Requirements

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity

Emissions Unit ID: B309

monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:
 - a. The total quantity of coal burned, in tons.
 - b. The average ash content (percent) of the coal burned.
 - c. The average sulfur content (percent) of the coal burned.
 - d. The average heat content of the coal burned, in Btu/pound.
 - e. The average SO₂ emission rate from the coal burned, in lbs SO₂/mmBtu actual heat input.
 - f. The total heat input for this emissions unit, in mmBtu/month.
 - g. The total combined heat input for emissions units B309, B310, B311, B606, B607, and B608, in mmBtu/month.
 - h. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined. Also, for the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined for each calendar month.
 - i. The calculated particulate, SO₂, NO_x, and CO emission rates for this emissions unit, in tons/month (see V.1. for calculation methodology).
 - j. The total combined particulate, SO₂, NO_x, and CO emission rates from emissions units B309, B310, B311, B606, B607, and B608, in tons/month.
 - k. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the particulate, SO₂, NO_x, and CO emission rates for emissions units B309, B310, B311, B606, B607, and B608 combined.
3. The permittee shall collect representative grab samples of the coal burned in this emissions unit

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daily. Each sample shall be collected from the coal conveyor belt. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected 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 Isothermally Controlled Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

4. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of three hundred fifty (350) degrees Fahrenheit (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of three hundred fifty (350) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

5. The permittee shall continuously monitor and record the steam flow rate from this emissions unit. Copies of all steam flow rate charts shall be maintained for a period of 5 years, and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request.

The permittee shall maintain daily records of the following information in order to determine compliance with the hourly steam load limitations:

- a. The total steam load for this emissions unit for all periods of time when only this boiler identified as emissions unit B309 is in

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operation, in pounds steam per day.

- b. The total hours of operation for all periods of time when only this boiler identified as emissions unit B309 is in operation.
- c. The average hourly steam load for this emissions unit for all periods of time when only this boiler identified as emissions unit B309 is in operation, in pounds steam per hour (i.e., (a)/(b)).
- d. The total steam load for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per day.
- e. The total hours of operation for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation.
- f. The average hourly steam load for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per hour (i.e., (d)/(e)).
- g. The total steam load for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per day.
- h. The total hours of operation for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation.

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- i. The average hourly steam load for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per hour (i.e., (g)/(h)).
6. 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.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the 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 reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document 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.

2. 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

3. Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for

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each calendar month during the calendar quarter:

- a. The total quantity of coal burned (tons).
- b. The average ash content (percent) of the coal burned.
- c. The average sulfur content (percent) of the coal burned.
- d. The average heat content (Btu/pound) of the coal burned.
- e. The average sulfur dioxide emissions rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal burned.

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.

4. The permittee shall submit quarterly reports which identify the following:
 - a. Any exceedances of the hourly steam flow rate limitation for this emissions unit, and the actual hourly steam flow rate for each such exceedance.
 - b. Any exceedances of the combined hourly steam flow rate limitation from any two of the boilers identified as B309, B310, and B311 combined, and the actual hourly steam flow rate for each such exceedance.
 - c. Any exceedances of the total combined hourly steam flow rate limitation from all three of the boilers identified as B309, B310, and B311, and the actual hourly steam flow rate for each such exceedance.
 - d. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
 - e. Any exceedances of the rolling, 12-month heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined, and for the first 12 calendar months of operation following final issuance of this permit, all exceedances of the maximum allowable cumulative combined heat input rate.
 - f. Any exceedances of the rolling, 12-month particulate, SO₂, NO_x, and/or CO emission rates from emissions units B309, B310, B311, B606, B607, and B608 combined.

These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be

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determined in accordance with the following method(s):

a. Emission Limitation -

0.10 lb particulate emissions/mmBtu actual
heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on March 21, 2000 with results of 0.010 lb particulate emissions/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

b. Emission Limitation -

2.00 lbs SO₂/mmBtu actual heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on March 21, 2000 with results of 1.21 lbs sulfur dioxide/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2. Compliance can also be based upon the record keeping requirements specified in A.III.2. and the use of the equation contained in OAC rule 3745-18-04(F)

c. Emission Limitation -

155 tons particulate emissions, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.10 lb particulate emissions/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation

presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

d. Emission Limitation -

2626 tons SO₂, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 2.00 lbs SO₂/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

e. Emission Limitation -

16.9 lbs/hour particulate emissions

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Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on March 21, 2000 with results of 1.61 lbs particulate emissions/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

f. Emission Limitation -

56.78 TPY particulate emissions

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 0.010 lb particulate emissions/mmBtu determined during a March 21, 2000 performance test shall be used in this calculation.) The annual particulate emissions are the sum of the monthly particulate emissions rates for the calendar year.

g. Emission Limitation -

338 lbs/hour SO₂

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on March 21, 2000 with results of 194.81 lbs SO₂/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

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h. Emission Limitation -

1135.68 TPY SO₂

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 1.21 lb sulfur dioxide/mmBtu determined during a March 21, 2000 performance test shall be used in this calculation.) The annual SO₂ emissions are the sum of the monthly emission rates for the calendar year.

i. Emission Limitation -

0.6 lb NO_x/mmBtu actual heat input

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Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the facility tested emission factor of 16 lbs NO_x/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (169 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 7.

j. Emission Limitation -

336.54 TPY NO_x

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the facility tested emission factor of 16 lbs NO_x/ton of coal, and dividing by 2,000 pounds per ton. The annual NO_x emissions are the sum of the monthly NO_x emission rates for the calendar year.

k. Emission Limitation -

788 tons NO_x, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.6 lb NO_x/mmBtu actual

heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

l. Emission Limitation -

0.18 lb CO/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the AP-42 Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (169 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 10.

m. Emission Limitation -

105.17 TPY CO

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the AP-42, Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal, and dividing by 2,000 pounds per ton. The annual CO emissions are the sum of the monthly CO emission rates for the calendar year.

n. Emission Limitation -

236.34 tons CO, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.18 lb CO/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

o. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined through visible emissions 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).

2. Emissions Testing

By February 2003 and every three years thereafter, the permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 0.10 lb/mmBtu actual heat input and 16.9 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

By February 2003 and every three years thereafter, the permittee shall conduct, or have conducted, sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 2.00 lb/mmBtu actual heat input and 338 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Method 6.

The tests shall be conducted while the emissions unit is operating at the maximum allowable capacity (169 mmBtu/hour).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. 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 monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-186 issued September 30, 1981 and modified June 12, 1996 for emissions unit B309.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|--|
| B309 - 183 mmBtu/hour coal-fired spreader stoker boiler No. 4, with baghouse control limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2030) | None | None |

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> |
|---|---|
| B310 - 183 mmBtu/hour coal-fired spreader stoker boiler No. 3, with baghouse control limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2028) | 40 CFR Part 51, Appendix S OAC rules 3745-31-21 through 3745-31-27 |
| | OAC rule 3745-31-05(A)(3) |

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| | <u>Applicable Emissions Limitations/Control Measures</u> | |
|---------------------------|--|--|
| OAC rule 3745-17-07(A)(1) | <p>Particulate emissions shall not exceed 0.10 lb/mmBtu actual heat input;</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 2.00 lbs/mmBtu actual heat input;</p> <p>155 tons particulate emissions, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> | <p>B607, and B608 combined.</p> <p>338 lbs/hour SO₂</p> <p>1135.68 TPY SO₂ from this emissions unit with total combined SO₂ emissions not to exceed 2626 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> <p>Nitrogen oxide (NO_x) emissions shall not exceed 0.6 lb/mmBtu actual heat input</p> <p>336.54 TPY NO_x from this emissions unit with total combined NO_x emissions</p> |
| OAC rule 3745-17-10(C)(1) | <p>2626 tons SO₂, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> | <p>not to exceed 788 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> |
| OAC rule 3745-18-35(A) | <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 51, Appendix S; OAC rules 3745-31-21 through 3745-31-27; and OAC rule 3745-17-07(A)(1).</p> <p>16.9 lbs/hour particulate emissions</p> <p>56.78 TPY particulate emissions from this emissions unit with total combined particulate emissions not to exceed 155 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606,</p> | <p>Carbon monoxide (CO) emissions shall not exceed 0.18 lb/mmBtu actual heat input</p> <p>105.17 TPY CO from this emissions unit with total combined CO emissions not to exceed 236.34 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> <p>Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule</p> <p>The emission limitation specified by this rule is less stringent than the emission</p> |

limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The quality of coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.
2. This emissions unit shall be completely shutdown during the months of June, July, and August.
3. The maximum allowable total heat input for this emissions unit is limited to 169 mmBtu/hour. This total heat input of 169 mmBtu/hour corresponds to a steam load of 136,000 pounds per hour. At no time shall the steam flow rate from B309 exceed 136,000 pounds per hour (as an average over any one-hour period).
4. The maximum allowable total heat input for any two of emissions units B309, B310, and B311 combined is limited to 332 mmBtu/hour. This total combined heat input of 332 mmBtu/hour corresponds to a steam load of 265,600 pounds per hour. At no time shall the steam flow rate from any two of the boilers, identified as B309, B310, and B311, combined exceed 265,600 pounds per hour (as an average over any one-hour period).
5. The maximum allowable total heat input for the three boilers identified as B309, B310, and B311 combined is limited to 500 mmBtu/hour. This total combined heat input of 500 mmBtu/hour corresponds to a steam load of 400,000 pounds per hour. At no time shall the steam flow rate from all three boilers, identified as B309, B310, and B311, combined exceed 400,000 pounds per hour (as an average over any one-hour period).
6. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6.5 inches of water while the emissions unit is in operation.

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7. The maximum annual heat input for emissions units B309, B310, B311, B606, B607, and B608 combined shall not exceed 2,626,000 mmBtu, as a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following final issuance of this permit, the permittee shall not exceed the heat input levels from emissions units B309, B310, B311, B606, B607, and B608 combined specified in the following table:

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Maximum
Allowable

| <u>Month(s)</u> | <u>Cumulative Heat Input (mmBtu)</u> |
|-----------------|--------------------------------------|
| 1 | 292,000 |
| 1 - 2 | 584,000 |
| 1 - 3 | 876,000 |
| 1 - 4 | 1,168,000 |
| 1 - 5 | 1,460,000 |
| 1 - 6 | 1,752,000 |
| 1 - 7 | 2,044,000 |
| 1 - 8 | 2,336,000 |
| 1 - 9 | 2,626,000 |
| 1 - 10 | 2,626,000 |
| 1 - 11 | 2,626,000 |
| 1 - 12 | 2,626,000 |

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined shall be based upon a rolling, 12-month summation of the heat inputs.

III. Monitoring and/or Recordkeeping Requirements

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity

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monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:
 - a. The total quantity of coal burned, in tons.
 - b. The average ash content (percent) of the coal burned.
 - c. The average sulfur content (percent) of the coal burned.
 - d. The average heat content of the coal burned, in Btu/pound.
 - e. The average SO₂ emission rate from the coal burned, in lbs SO₂/mmBtu actual heat input.
 - f. The total heat input for this emissions unit, in mmBtu/month.
 - g. The total combined heat input for emissions units B309, B310, B311, B606, B607, and B608, in mmBtu/month.
 - h. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined. Also, for the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined for each calendar month.
 - i. The calculated particulate, SO₂, NO_x, and CO emission rates for this emissions unit, in tons (see V.1. for calculation methodology).
 - j. The total combined particulate, SO₂, NO_x, and CO emission rates from emissions units B309, B310, B311, B606, B607, and B608, in tons/month.
 - k. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the particulate, SO₂, NO_x, and CO emission rates for emissions units B309, B310, B311, B606, B607, and B608 combined.
3. The permittee shall collect representative grab samples of the coal burned in this emissions unit daily. Each sample shall be collected from the coal conveyor belt. The coal sampling shall be

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performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected 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 by the appropriate Ohio EPA District Office or local air agency.

4. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of three hundred fifty (350) degrees Fahrenheit (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of three hundred fifty (350) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

5. The permittee shall continuously monitor and record the steam flow rate from this emissions unit. Copies of all steam flow rate charts shall be maintained for a period of 5 years, and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request.

The permittee shall maintain daily records of the following information in order to determine compliance with the hourly steam load limitations:

- a. The total steam load for this emissions unit for all periods of time when only this boiler identified as emissions unit B310 is in operation, in pounds steam per day.

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- b. The total hours of operation for all periods of time when only this boiler identified as emissions unit B310 is in operation.
- c. The average hourly steam load for this emissions unit for all periods of time when only this boiler identified as emissions unit B310 is in operation, in pounds steam per hour (i.e., (a)/(b)).
- d. The total steam load for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per day.
- e. The total hours of operation for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation.
- f. The average hourly steam load for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per hour (i.e., (d)/(e)).
- g. The total steam load for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per day.
- h. The total hours of operation for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation.

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- i. The average hourly steam load for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per hour (i.e., (g)/(h)).
6. 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.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the 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 reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document 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.

2. 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

3. Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

- a. The total quantity of coal burned (tons).
- b. The average ash content (percent) of the coal burned.
- c. The average sulfur content (percent) of the coal burned.
- d. The average heat content (Btu/pound) of the coal burned.
- e. The average sulfur dioxide emissions rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal burned.

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.

4. The permittee shall submit quarterly reports which identify the following:
 - a. Any exceedances of the hourly steam flow rate limitation for this emissions unit, and the actual hourly steam flow rate for each such exceedance.
 - b. Any exceedances of the combined hourly steam flow rate limitation from any two of the boilers identified as B309, B310, and B311 combined, and the actual hourly steam flow rate for each such exceedance.
 - c. Any exceedances of the total combined hourly steam flow rate limitation from all three of the boilers identified as B309, B310, and B311, and the actual hourly steam flow rate for each such exceedance.
 - d. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
 - e. Any exceedances of the rolling, 12-month heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined, and for the first 12 calendar months of operation following final issuance of this permit, all exceedances of the maximum allowable cumulative combined heat input rates.
 - f. Any exceedances of the rolling, 12-month particulate, SO₂, NO_x, and/or CO emission rates from emissions units B309, B310, B311, B606, B607, and B608 combined.

These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

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a. Emission Limitation -

0.10 lb particulate emissions/mmBtu actual
heat input

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Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on January 26, 2000 with results of 0.014 lb particulate emissions/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

b. Emission Limitation -

2.00 lbs sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on January 26, 2000 with results of 1.40 lbs sulfur dioxide/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2. Compliance can also be based upon the record keeping requirements specified in A.III.2. and the use of the equation contained in OAC rule 3745-18-04(F).

c. Emission Limitation -

155 tons particulate emissions, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.10 lb particulate emissions/mmBtu actual heat input, and

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dividing by 2,000 lbs/ton. This calculation
presumes that compliance with the allowable
lb/mmBtu emission rate is maintained.

d. Emission Limitation -

2626 tons SO₂, as a rolling, 12-month
summation from B309, B310, B311, B606,
B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record
keeping as specified in A.III.2. and shall be
determined by multiplying the total heat
input for the rolling, 12-month period from
emissions units B309, B310, B311, B606,
B607, and B608 combined by the allowable
emission rate of 2.00 lbs SO₂/mmBtu actual
heat input, and dividing by 2,000 lbs/ton.
This calculation presumes that compliance
with the allowable lb/mmBtu emission rate is
maintained.

e. Emission Limitation -

16.9 lbs/hour particulate emissions

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on January 26, 2000 with results of 2.17 lbs particulate emissions/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2

f. Emission Limitation -

56.78 TPY particulate emissions

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 0.014 lb particulate emissions/mmBtu determined during a January 26, 2000 performance test shall be used in this calculation.) The annual particulate emissions are the sum of the monthly particulate emissions rates for the calendar year.

g. Emission Limitation -

338 lbs/hour SO₂

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on

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January 26, 2000 with results of 217 lbs sulfur dioxide/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

h. Emission Limitation -

1135.68 TPY SO₂

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 1.40 lb sulfur dioxide/mmBtu determined during a January 26, 2000 performance test shall be used in this calculation.) The annual SO₂ emissions are the sum of the monthly emission rates for the calendar year.

i. Emission Limitation -

0.6 lb NO_x/mmBtu actual heat input

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Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the facility tested emission factor of 16 lbs NOx/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (169 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 7.

j. Emission Limitation -

336.54 TPY NOx

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the facility tested emission factor of 16 lbs NOx/ton of coal, and dividing by 2,000 pounds per ton. The annual NOx emissions are the sum of the monthly NOx emission rates for the calendar year.

k. Emission Limitation -

788 tons NOx, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.6 lb NOx/mmBtu actual

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heat input, and dividing by 2,000 lbs/ton.
This calculation presumes that compliance
with the allowable lb/mmBtu emission rate is
maintained.

l. Emission Limitation -

0.18 lb CO/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the AP-42 Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (169 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 10.

m. Emission Limitation -

105.17 TPY CO

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the AP-42, Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal, and dividing by 2,000 pounds per ton. The annual CO emissions are the sum of the monthly CO emission rates for the calendar year.

n. Emission Limitation -

236.34 tons CO, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606,

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B607, and B608 combined by the allowable emission rate of 0.18 lb CO/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

o. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -
Compliance shall be determined through visible emissions 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).

2. Emissions Testing

By February 2003 and every three years thereafter, the permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 0.10 lb/mmBtu actual heat input and 16.9 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

By February 2003 and every three years thereafter, the permittee shall conduct, or have conducted, sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 2.00 lb/mmBtu actual heat input and 338 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Method 6.

The tests shall be conducted while the emissions unit is operating at the maximum allowable capacity (169 mmBtu/hour).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. 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 monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-185 issued September 30, 1981 and modified June 12, 1996 for emissions unit B310.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|--|
| B310 - 183 mmBtu/hour coal-fired spreader stoker boiler No. 3, with baghouse control limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2028) | None | None |

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> |
|---|---|
| B311 - 183 mmBtu/hour coal-fired spreader stoker boiler No. 5, with baghouse control limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2033) | 40 CFR Part 51, Appendix S OAC rules 3745-31-21 through 3745-31-27 |
| | OAC rule 3745-31-05(A)(3) |

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| | <u>Applicable Emissions Limitations/Control Measures</u> | |
|---------------------------|--|--|
| OAC rule 3745-17-07(A)(1) | <p>Particulate emissions shall not exceed 0.10 lb/mmBtu actual heat input;</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 2.00 lbs/mmBtu actual heat input;</p> <p>155 tons particulate emissions, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> | <p>B607, and B608 combined.</p> <p>338 lbs/hour SO₂</p> <p>1135.68 TPY SO₂ from this emissions unit with total combined SO₂ emissions not to exceed 2626 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> <p>Nitrogen oxide (NO_x) emissions shall not exceed 0.6 lb/mmBtu actual heat input</p> <p>336.54 TPY NO_x from this emissions unit with total combined NO_x emissions</p> |
| OAC rule 3745-17-10(C)(1) | <p>2626 tons SO₂, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> | <p>not to exceed 788 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> |
| OAC rule 3745-18-35(A) | <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 51, Appendix S; OAC rules 3745-31-21 through 3745-31-27; and OAC rule 3745-17-07(A)(1).</p> <p>16.9 lbs/hour particulate emissions</p> <p>56.78 TPY particulate emissions from this emissions unit with total combined particulate emissions not to exceed 155 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606,</p> | <p>Carbon monoxide (CO) emissions shall not exceed 0.18 lb/mmBtu actual heat input</p> <p>105.17 TPY CO from this emissions unit with total combined CO emissions not to exceed 236.34 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> <p>Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule</p> <p>The emission limitation specified by this rule is less stringent than the emission</p> |

limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The quality of coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.
2. This emissions unit shall be completely shutdown during the months of June, July, and August.
3. The maximum allowable total heat input for this emissions unit is limited to 169 mmBtu/hour. This total heat input of 169 mmBtu/hour corresponds to a steam load of 136,000 pounds per hour. At no time shall the steam flow rate from B309 exceed 136,000 pounds per hour (as an average over any one-hour period).
4. The maximum allowable total heat input for any two of emissions units B309, B310, and B311 combined is limited to 332 mmBtu/hour. This total combined heat input of 332 mmBtu/hour corresponds to a steam load of 265,600 pounds per hour. At no time shall the steam flow rate from any two of the boilers, identified as B309, B310, and B311, combined exceed 265,600 pounds per hour (as an average over any one-hour period).
5. The maximum allowable total heat input for the three boilers identified as B309, B310, and B311 combined is limited to 500 mmBtu/hour. This total combined heat input of 500 mmBtu/hour corresponds to a steam load of 400,000 pounds per hour. At no time shall the steam flow rate from all three boilers, identified as B309, B310, and B311, combined exceed 400,000 pounds per hour (as an average over any one-hour period).
6. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6.5 inches of water while the emissions unit is in operation.

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7. The maximum annual heat input for emissions units B309, B310, B311, B606, B607, and B608 combined shall not exceed 2,626,000 mmBtu, as a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following final issuance of this permit, the permittee shall not exceed the heat input levels from emissions units B309, B310, B311, B606, B607, and B608 combined specified in the following table:

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| <u>Month(s)</u> | <u>Cumulative Heat Input (mmBtu)</u> | Maximum Allowable |
|-----------------|--------------------------------------|-------------------|
| 1 | 292,000 | |
| 1 - 2 | 584,000 | |
| 1 - 3 | 876,000 | |
| 1 - 4 | 1,168,000 | |
| 1 - 5 | 1,460,000 | |
| 1 - 6 | 1,752,000 | |
| 1 - 7 | 2,044,000 | |
| 1 - 8 | 2,336,000 | |
| 1 - 9 | 2,626,000 | |
| 1 - 10 | 2,626,000 | |
| 1 - 11 | 2,626,000 | |
| 1 - 12 | 2,626,000 | |

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined shall be based upon a rolling, 12-month summation of the heat inputs.

III. Monitoring and/or Recordkeeping Requirements

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity

Emissions Unit ID: B311

monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:
 - a. The total quantity of coal burned, in tons.
 - b. The average ash content (percent) of the coal burned.
 - c. The average sulfur content (percent) of the coal burned.
 - d. The average heat content of the coal burned, in Btu/pound.
 - e. The average SO₂ emission rate from the coal burned, in lbs SO₂/mmBtu actual heat input.
 - f. The total heat input for this emissions unit, in mmBtu/month.
 - g. The total combined heat input for emissions units B309, B310, B311, B606, B607, and B608, in mmBtu/month
 - h. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined. Also, for the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined for each calendar month.
 - i. The calculated particulate, SO₂, NO_x, and CO emission rates for this emissions unit, in tons (see V.1. for calculation methodology).
 - j. The total combined particulate, SO₂, NO_x, and CO emission rates from emissions units B309, B310, B311, B606, B607, and B608, in tons/month.
 - k. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the particulate, SO₂, NO_x, and CO emission rates for emissions units B309, B310, B311, B606, B607, and B608 combined.
3. The permittee shall collect representative grab samples of the coal burned in this emissions unit daily. Each sample shall be collected from the coal conveyor belt. The coal sampling shall be

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performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected 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 by the appropriate Ohio EPA District Office or local air agency.

4. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of three hundred fifty (350) degrees Fahrenheit (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of three hundred fifty (350) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

5. The permittee shall continuously monitor and record the steam flow rate from this emissions unit. Copies of all steam flow rate charts shall be maintained for a period of 5 years, and shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon verbal or written request.

The permittee shall maintain daily records of the following information in order to determine compliance with the hourly steam load limitations:

- a. The total steam load for this emissions unit for all periods of time when only this boiler identified as emissions unit B311 is in operation, in pounds steam per day.

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- b. The total hours of operation for all periods of time when only this boiler identified as emissions unit B311 is in operation.
- c. The average hourly steam load for this emissions unit for all periods of time when only this boiler identified as emissions unit B311 is in operation, in pounds steam per hour (i.e., (a)/(b)).
- d. The total steam load for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per day.
- e. The total hours of operation for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation.
- f. The average hourly steam load for all periods of time when any two of the boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per hour (i.e., (d)/(e)).
- g. The total steam load for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per day.
- h. The total hours of operation for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation.

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- i. The average hourly steam load for all periods of time when all three boilers identified as emissions units B309, B310, and B311 are in operation, in pounds steam per hour (i.e., (g)/(h)).
6. 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.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the 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 reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document 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.

2. 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

3. Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

- a. The total quantity of coal burned (tons).
- b. The average ash content (percent) of the coal burned.
- c. The average sulfur content (percent) of the coal burned.
- d. The average heat content (Btu/pound) of the coal burned.
- e. The average sulfur dioxide emissions rate (pounds sulfur dioxide/mmBtu actual heat input) from the coal burned.

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.

4. The permittee shall submit quarterly reports which identify the following:
 - a. Any exceedances of the hourly steam flow rate limitation for this emissions unit, and the actual hourly steam flow rate for each such exceedance.
 - b. Any exceedances of the combined hourly steam flow rate limitation from any two of the boilers identified as B309, B310, and B311 combined, and the actual hourly steam flow rate for each such exceedance.
 - c. Any exceedances of the total combined hourly steam flow rate limitation from all three of the boilers identified as B309, B310, and B311, and the actual hourly steam flow rate for each such exceedance.
 - d. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
 - e. Any exceedances of the rolling, 12-month heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined, and for the first 12 calendar months of operation following final issuance of this permit, all exceedances of the maximum allowable cumulative combined heat input rates.
 - f. Any exceedances of the rolling, 12-month particulate, SO₂, NO_x, and/or CO emission rates from emissions units B309, B310, B311, B606, B607, and B608 combined.

These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):

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a. Emission Limitation -

0.10 lb particulate emissions/mmBtu actual
heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on January 24, 2000 with results of 0.014 lb particulate emissions/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

b. Emission Limitation -

2.00 lbs sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on January 24, 2000 with results of 1.47 lbs sulfur dioxide/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2. Compliance can also be based upon the record keeping requirements specified in A.III.2. and the use of the equation contained in OAC rule 3745-18-04(F).

c. Emission Limitation -

155 tons particulate emissions, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.10 lb particulate emissions/mmBtu actual heat input, and

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dividing by 2,000 lbs/ton. This calculation
presumes that compliance with the allowable
lb/mmBtu emission rate is maintained.

d. Emission Limitation -

2626 tons SO₂, as a rolling, 12-month
summation from B309, B310, B311, B606,
B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record
keeping as specified in A.III.2. and shall be
determined by multiplying the total heat
input for the rolling, 12-month period from
emissions units B309, B310, B311, B606,
B607, and B608 combined by the allowable
emission rate of 2.00 lb SO₂/mmBtu actual
heat input, and dividing by 2,000 lbs/ton.
This calculation presumes that compliance
with the allowable lb/mmBtu emission rate is
maintained.

e. Emission Limitation -

16.9 lbs/hour particulate emissions

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on January 24, 2000 with results of 2.18 lbs particulate emissions/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

f. Emission Limitation -

56.78 TPY particulate emissions

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 0.014 lb particulate emissions/mmBtu determined during a January 24, 2000 performance test shall be used in this calculation.) The annual particulate emissions are the sum of the monthly particulate emissions rates for the calendar year.

g. Emission Limitation -

338 lbs/hour SO₂

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on

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January 24, 2000 with results of 229.32 lbs sulfur dioxide/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

h. Emission Limitation -

1135.68 TPY SO₂

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 1.47 lb sulfur dioxide/mmBtu determined during a January 24, 2000 performance test shall be used in this calculation.) The annual SO₂ emissions are the sum of the monthly emission rates for the calendar year.

i. Emission Limitation -

0.6 lb NO_x/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the facility tested emission factor of 16 lbs NO_x/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (169 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 7.

j. Emission Limitation -

336.54 TPY NO_x

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the facility tested emission factor of 16 lbs NO_x/ton of coal, and dividing by 2,000 pounds per ton. The annual NO_x emissions are the sum of the monthly NO_x emission rates for the calendar year.

k. Emission Limitation -

788 tons NO_x, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.6 lb NO_x/mmBtu actual

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 heat input, and dividing by 2,000 lbs/ton.
 This calculation presumes that compliance
 with the allowable lb/mmBtu emission rate is
 maintained.

l. Emission Limitation -

0.18 lb CO/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the AP-42 Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (169 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 10.

m. Emission Limitation -

105.17 TPY CO

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the AP-42, Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal, and dividing by 2,000 pounds per ton. The annual CO emissions are the sum of the monthly CO emission rates for the calendar year.

n. Emission Limitation -

236.34 tons CO, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606,

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B607, and B608 combined by the allowable emission rate of 0.18 lb CO/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

o. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -
Compliance shall be determined through visible emissions 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).

2. Emissions Testing

By February 2003 and every three years thereafter, the permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 0.10 lb/mmBtu actual heat input and 16.9 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

By February 2003 and every three years thereafter, the permittee shall conduct, or have conducted, sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 2.00 lb/mmBtu actual heat input and 338 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Method 6.

The tests shall be conducted while the emissions unit is operating at the maximum allowable capacity (169 mmBtu/hour).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. 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 monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-187 issued September 30, 1981 and modified June 12, 1996 for emissions unit B311.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|--|--------------------------------------|--|
| B311 - 183 mmBtu/hour coal-fired spreader stoker boiler No. 5, with baghouse control, limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2033) | None | None |

2. Additional Terms and Conditions

- 2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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Emissions Unit ID: B606

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

- 1. The specific operations(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 specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> |
|---|---|
| B606 - 176 mmBtu/hour coal-fired spreader stoker boiler No. 4, with baghouse control, Building 31240 (2008) | 40 CFR Part 51, Appendix S OAC rules 3745-31-21 through 3745-31-27 |
| | OAC rule 3745-31-05(A)(3) |

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| | <u>Applicable Emissions Limitations/Control Measures</u> | B608. |
|---------------------------|--|--|
| OAC rule 3745-17-07(A)(1) | <p>Particulate emissions shall not exceed 0.10 lb/mmBtu actual heat input;</p> <p>Sulfur dioxide (SO₂) emissions shall not exceed 2.00 lbs/mmBtu actual heat input;</p> <p>155 tons particulate emissions, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> | <p>352 lbs/hour SO₂</p> <p>1182.72 TPY SO₂ from this emissions unit with total combined SO₂ emissions not to exceed 2626 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> <p>Nitrogen oxide (NO_x) emissions shall not exceed 0.6 lb/mmBtu actual heat input</p> |
| OAC rule 3745-17-10(C)(1) | <p>2626 tons SO₂, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> | <p>350.32 TPY NO_x from this emissions unit with total combined NO_x emissions not to exceed 788 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> |
| OAC rule 3745-18-35(A) | <p>The requirements of this rule also include compliance with the requirements of 40 CFR Part 51, Appendix S; OAC rules 3745-31-21 through 3745-31-27; and OAC rule 3745-17-07(A)(1).</p> <p>17.6 lbs/hour particulate emissions</p> <p>59.14 TPY particulate emissions from this emissions unit with total combined particulate emissions not to exceed 155 tons, as a rolling, 12-month summation from the coal fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and</p> | <p>Carbon monoxide (CO) emissions shall not exceed 0.18 lb/mmBtu actual heat input</p> <p>109.54 TPY CO from this emissions unit with total combined CO emissions not to exceed 236.34 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined.</p> <p>Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule</p> <p>The emission limitation specified by this rule is less stringent than the emission</p> |

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limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The quality of coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.
2. Two of the three coal-fired boilers identified as B606, B607, and B608 shall be completely shutdown during the periods from March 15 to May 15 and October 15 to November 15.
3. The maximum allowable total heat input for the three boilers identified as B606, B607, and B608 combined is limited to 443 mmBtu/hour. This total combined heat input of 443 mmBtu/hour corresponds to a coal input of 16.4 tons per hour. At no time shall the coal input rate from all three boilers, identified as B606, B607, and B608, combined exceed 16.4 tons per hour (as an average over any one-hour period).
4. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6.5 inches of water while the emissions unit is in operation.
5. The maximum annual heat input for emissions units B309, B310, B311, B606, B607, and B608 combined shall not exceed 2,626,000 mmBtu, as a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following final issuance of this permit, the permittee shall not exceed the heat input levels from emissions units B309, B310, B311, B606, B607, and B608 combined specified in the following table:

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Allowable

| <u>Month(s)</u> | <u>Cumulative Heat Input (mmBtu)</u> |
|-----------------|--------------------------------------|
| 1 | 292,000 |
| 1 - 2 | 584,000 |
| 1 - 3 | 876,000 |
| 1 - 4 | 1,168,000 |
| 1 - 5 | 1,460,000 |
| 1 - 6 | 1,752,000 |
| 1 - 7 | 2,044,000 |
| 1 - 8 | 2,336,000 |
| 1 - 9 | 2,626,000 |
| 1 - 10 | 2,626,000 |
| 1 - 11 | 2,626,000 |
| 1 - 12 | 2,626,000 |

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined shall be based upon a rolling, 12-month summation of the heat inputs.

III. Monitoring and/or Recordkeeping Requirements

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:

- a. The total quantity of coal burned, in tons.
 - b. The average ash content (percent) of the coal burned.
 - c. The average sulfur content (percent) of the coal burned.
 - d. The average heat content of the coal burned, in Btu/pound.
 - e. The average SO₂ emission rate from the coal burned, in lbs SO₂/mmBtu actual heat input.
 - f. The total heat input for this emissions unit, in mmBtu/month.
 - g. The total combined heat input for emissions units B309, B310, B311, B606, B607, and B608, in mmBtu/month.
 - h. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined. Also, for the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined for each calendar month.
 - i. The calculated particulate, SO₂, NO_x, and CO emission rates for this emissions unit, in tons (see V.1. for calculation methodology).
 - j. The total combined particulate, SO₂, NO_x, and CO emission rates from emissions units B309, B310, B311, B606, B607, and B608, in tons/month.
 - k. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of particulate, SO₂, NO_x, and CO emission rates for emissions units B309, B310, B311, B606, B607, and B608 combined.
 - l. The boilers identified as B606, B607, and B608 which are shutdown during the specified time periods identified in A.II.2.
3. The permittee shall collect representative grab samples of the coal burned in this emissions unit daily. Each sample shall be collected from the coal conveyor belt. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each

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calendar month, all of the grab samples which were collected 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 Isotherm Bomb Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

4. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of three hundred fifty (350) degrees Fahrenheit (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of three hundred fifty (350) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

5. The permittee shall maintain daily records of the following information in order to determine compliance with the hourly coal input usage rate:

- a. The total quantity of coal burned in this emissions unit, in tons.
- b. The total hours of operation.
- c. The average hourly coal input for this emissions unit, in tons/hour (i.e., (a)/(b)).
- d. The total average hourly coal input from emissions units B606, B607, and B608 combined.

6. The permittee shall properly install, operate, and maintain equipment to monitor the pressure drop

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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.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the 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 reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document 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.

2. 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

3. Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

- a. The total quantity of coal burned, in tons.
- b. The average ash content (percent) of the coal burned.
- c. The average sulfur content (percent) of the coal burned.
- d. The average heat content (Btu/pound) of the coal burned.
- e. The average sulfur dioxide emissions rate (lbs SO₂/mmBtu actual heat input) from the coal burned.

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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.

4. The permittee shall submit quarterly reports which identify the following:
 - a. Any exceedances of the hourly coal input rate from emissions units B606, B607, and B608 combined, and the actual average hourly coal input rate for each such exceedance.
 - b. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
 - c. Any exceedances of the rolling, 12-month heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined, and for the first 12 calendar months of operation following final issuance of this permit, all exceedances of the maximum allowable cumulative combined heat input rates.
 - d. Any exceedances of the rolling, 12-month particulate, SO₂, NO_x, and/or CO emission rates from emissions units B309, B310, B311, B606, B607, and B608 combined.

These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation -
0.10 lb particulate emissions/mmBtu actual heat input

Emissions Unit ID: B606

Applicable Compliance Method -
 Compliance with this limit was demonstrated during a performance test conducted on February 10, 2001 with results of 0.009 lb particulate emissions/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

b. Emission Limitation -

2.00 lbs sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -
 Compliance with this limit was demonstrated during a performance test conducted on February 10, 2001 with results of 1.28 lbs sulfur dioxide/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2. Compliance can also be based upon the record keeping requirements specified in A.III.2. and the use of the equation contained in OAC rule 3745-18-04(F).

c. Emission Limitation -

155 tons particulate emissions, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
 Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.10 lb particulate emissions/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

d. Emission Limitation -

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Emissions Unit ID: B606

2626 tons SO₂, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 2.00 lbs SO₂/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

e. Emission Limitation -

17.6 lbs/hour particulate emissions

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on February 10, 2001 with results of 1.59 lbs particulate emissions/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

f. Emission Limitation -

59.14 TPY particulate emissions

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 0.009 lb particulates/mmBtu determined during a February 10, 2001 performance test shall be used in this calculation.) The annual particulate emissions are the sum of the monthly particulate emissions rates for the calendar year.

g. Emission Limitation -

352 lbs/hour SO₂

Applicable Compliance Method -

Compliance with this limit was demonstrated during a performance test conducted on February 10, 2001 with results of 219.1 lbs

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 sulfur dioxide/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

h. Emission Limitation -

1182.72 TPY SO₂

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 1.28 lbs sulfur dioxide/mmBtu determined during a February 10, 2001 performance test shall be used in this calculation.) The annual SO₂ emissions are the sum of the monthly emission rates for the calendar year.

i. Emission Limitation -

0.6 lb NO_x/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the facility tested emission factor of 16 lbs NO_x/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (176 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 7.

j. Emission Limitation -

350.32 TPY NO_x

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the facility tested emission factor of 16 lbs NO_x/ton of coal, and dividing by 2,000 pounds per ton. The annual NO_x emissions are the sum of the monthly NO_x emission rates for the calendar year.

k. Emission Limitation -

788 tons NO_x, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.6 lb NO_x/mmBtu actual

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heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

l. Emission Limitation -

0.18 lb CO/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the AP-42 Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (176 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 10.

m. Emission Limitation -

109.54 TPY CO

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the AP-42, Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal, and dividing by 2,000 pounds per ton. The annual CO emissions are the sum of the monthly CO emission rates for the calendar year.

n. Emission Limitation -

236.34 tons CO, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

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Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.18 lb CO/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

o. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined through visible emissions 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).

2. Emissions Testing

By February 2004 and every three years thereafter, the permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 0.10 lb/mmBtu actual heat input and 17.6 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

By February 2004 and every three years thereafter, the permittee shall conduct, or have conducted, sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 2.00 lb/mmBtu actual heat input and 352 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Method 6.

The tests shall be conducted while the emissions unit is operating at maximum capacity (176 mmBtu/hour).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions

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unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. 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 monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-181 issued September 30, 1981 for emissions unit B606.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|--|
| B606 - 176 mmBtu/hour coal-fired spreader stoker boiler No. 4, with baghouse control, Building 31240 (2008) | None | None |

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

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None

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Emissions Unit ID: B607

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> |
|---|---|
| B607 - 176 mmBtu/hour coal-fired spreader stoker boiler No. 5, with baghouse control, Building 31240 (2012) | 40 CFR Part 51, Appendix S OAC rules 3745-31-21 through 3745-31-27 |
| | OAC rule 3745-31-05(A)(3) |

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| | Applicable Emissions Limitations/Control Measures | B607, and B608 combined. |
|---------------------------|---|---|
| OAC rule 3745-17-07(A)(1) | Particulate emissions shall not exceed 0.10 lb/mmBtu actual heat input; Sulfur dioxide (SO2) emissions shall not exceed 2.00 lbs/mmBtu actual heat input; 155 tons particulate emissions, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. | 352 lbs/hour SO2 1182.72 TPY SO2 from this emissions unit with total combined SO2 emissions not to exceed 2626 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. Nitrogen oxide (NOx) emissions shall not exceed 0.6 lb/mmBtu actual heat input |
| OAC rule 3745-17-10(C)(1) | 2626 tons SO2, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. | 350.32 TPY NOx from this emissions unit with total combined NOx emissions not to exceed 788 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. |
| OAC rule 3745-18-35(A) | The requirements of this rule also include compliance with the requirements of 40 CFR Part 51, Appendix S; OAC rules 3745-31-21 through 3745-31-27; and OAC rule 3745-17-07(A)(1). 17.6 lbs/hour particulate emissions 59.14 TPY particulate emissions from this emissions unit with total combined particulate emissions not to exceed 155 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, | Carbon monoxide (CO) emissions shall not exceed 0.18 lb/mmBtu actual heat input 109.54 TPY CO from this emissions unit with total combined CO emissions not to exceed 236.34 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule The emission limitation specified by this rule is less stringent than the emission |

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limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

2. Additional Terms and Conditions**2.a** None**II. Operational Restrictions**

1. The quality of coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.
2. Two of the three coal-fired boilers identified as B606, B607, and B608 shall be completely shutdown during the periods from March 15 to May 15 and October 15 to November 15.
3. The maximum allowable total heat input for the three boilers identified as B606, B607, and B608 combined is limited to 443 mmBtu/hour. This total combined heat input of 443 mmBtu/hour corresponds to a coal input of 16.4 tons per hour. At no time shall the coal input rate from all three boilers, identified as B606, B607, and B608, combined exceed 16.4 tons per hour (as an average over any one-hour period).
4. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6.5 inches of water while the emissions unit is in operation.
5. The maximum annual heat input for emissions units B309, B310, B311, B606, B607, and B608 combined shall not exceed 2,626,000 mmBtu, as a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following final issuance of this permit, the permittee shall not exceed the heat input levels from emissions units B309,

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B310, B311, B606, B607, and B608 combined specified in the following table:

| <u>Month(s)</u> | <u>Cumulative Heat Input (mmBtu)</u> | Maximum Allowable |
|-----------------|--------------------------------------|-------------------|
| 1 | 292,000 | |
| 1 - 2 | 584,000 | |
| 1 - 3 | 876,000 | |
| 1 - 4 | 1,168,000 | |
| 1 - 5 | 1,460,000 | |
| 1 - 6 | 1,752,000 | |
| 1 - 7 | 2,044,000 | |
| 1 - 8 | 2,336,000 | |
| 1 - 9 | 2,626,000 | |
| 1 - 10 | 2,626,000 | |
| 1 - 11 | 2,626,000 | |
| 1 - 12 | 2,626,000 | |

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined shall be based upon a rolling, 12-month summation of the heat inputs.

III. Monitoring and/or Recordkeeping Requirements

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:

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- a. The total quantity of coal burned, in tons.
 - b. The average ash content (percent) of the coal burned.
 - c. The average sulfur content (percent) of the coal burned.
 - d. The average heat content of the coal burned, in Btu/pound.
 - e. The average SO₂ emission rate from the coal burned, in lbs SO₂/mmBtu actual heat input.
 - f. The total heat input for this emissions unit, in mmBtu/month.
 - g. The total combined heat input for emissions units B309, B310, B311, B606, B607, and B608, in mmBtu/month.
 - h. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined. Also, for the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined for each calendar month.
 - i. The calculated particulate, SO₂, NO_x, and CO emission rates for this emissions unit, in tons (see V.1. for calculation methodology).
 - j. The total combined particulate, SO₂, NO_x, and CO emission rates from emissions units B309, B310, B311, B606, B607, and B608, in tons/month.
 - k. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the particulate, SO₂, NO_x, and CO emission rates for emissions units B309, B310, B311, B606, B607, and B608 combined.
 - l. The boilers identified as B606, B607, and B608 which are shutdown during the specified time periods identified in A.II.2.
3. The permittee shall collect representative grab samples of the coal burned in this emissions unit daily. Each sample shall be collected from the coal conveyor belt. The coal sampling shall be performed in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected 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 Isotherm Bomb Calorimeters, respectively. Alternative, equivalent methods may be used upon written approval by the appropriate Ohio EPA District Office or local air agency.

4. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of three hundred fifty (350) degrees Fahrenheit (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of three hundred fifty (350) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

5. The permittee shall maintain daily records of the following information in order to determine compliance with the hourly coal input usage rate:
 - a. The total quantity of coal burned in this emissions unit, in tons.
 - b. The total hours of operation.
 - c. The average hourly coal input for this emissions unit, in tons/hour (i.e., (a)/(b)).
 - d. The total average hourly coal input from emissions units B606, B607, and B608 combined.
6. 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.

IV. Reporting Requirements

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1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the 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 reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document 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.

2. 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

3. Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

- a. The total quantity of coal burned, in tons.
- b. The average ash content (percent) of the coal burned.
- c. The average sulfur content (percent) of the coal burned.
- d. The average heat content (Btu/pound) of the coal burned.
- e. The average sulfur dioxide emissions rate (lbs SO₂/mmBtu actual heat input) from the coal burned.

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.

4. The permittee shall submit quarterly reports which identify the following:
 - a. Any exceedances of the hourly coal input rate from emissions units B606, B607, and B608 combined, and the actual average hourly coal input rate for each such exceedance.
 - b. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
 - c. Any exceedances of the rolling, 12-month heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined, and for the first 12 calendar months following final issuance of this permit, all exceedances of the maximum allowable cumulative combined heat input rates.
 - d. Any exceedances of the rolling, 12-month particulate, SO₂, NO_x, and/or CO emission rates from B309, B310, B311, B606, B607, and B608 combined.

These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation -
0.10 lb particulate emissions/mmBtu actual heat input

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Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on February 7, 2001 with results of 0.007 lb particulate emissions/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

b. Emission Limitation -

2.00 lbs sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on February 7, 2001 with results of 1.39 lbs sulfur dioxide/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2. Compliance can also be based upon the record keeping requirements specified in A.III.2. and the use of the equation contained in OAC rule 3745-18-04(F).

c. Emission Limitation -

155 tons particulate emissions, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.10 lb particulate emissions/mmBtu actual heat input, and

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dividing by 2,000 lbs/ton. This calculation
presumes that compliance with the allowable
lb/mmBtu emission rate is maintained.

d. Emission Limitation -

2626 tons SO₂, as a rolling, 12-month
summation from B309, B310, B311, B606,
B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record
keeping as specified in A.III.2. and shall be
determined by multiplying the total heat
input for the rolling, 12-month period from
emissions units B309, B310, B311, B606,
B607, and B608 combined by the allowable
emission rate of 2.00 lbs SO₂/mmBtu actual
heat input, and dividing by 2,000 lbs/ton.
This calculation presumes that compliance
with the allowable lb/mmBtu emission rate is
maintained.

e. Emission Limitation -

17.6 lbs/hour particulate emissions

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on February 7, 2001 with results of 1.15 lbs particulate emissions/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

f. Emission Limitation -

59.14 TPY particulate emissions

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 0.007 lb particulate emissions/mmBtu determined during a February 7, 2001 performance test shall be used in this calculation.) The annual particulate emissions are the sum of the monthly particulate emissions rates for the calendar year.

g. Emission Limitation -

352 lbs/hour SO₂

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on

February 7, 2001 with results of 231.1 lbs sulfur dioxide/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

h. Emission Limitation -

1182.72 TPY SO₂

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 1.39 lbs sulfur dioxide/mmBtu determined during a February 7, 2001 performance test shall be used in this calculation.) The annual SO₂ emissions are the sum of the monthly emission rates for the calendar year.

i. Emission Limitation -

0.6 lb NO_x/mmBtu actual heat input

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Applicable Compliance Method -
Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the facility tested emission factor of 16 lbs NO_x/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (176 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 7.

j. Emission Limitation -

350.32 TPY NO_x

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the facility tested emission factor of 16 lbs NO_x/ton of coal, and dividing by 2,000 pounds per ton. The annual NO_x emissions are the sum of the monthly NO_x emission rates for the calendar year.

k. Emission Limitation -

788 tons NO_x, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.6 lb NO_x/mmBtu actual

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 heat input, and dividing by 2,000 lbs/ton.
 This calculation presumes that compliance
 with the allowable lb/mmBtu emission rate is
 maintained.

l. Emission Limitation -

0.18 lb CO/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the AP-42 Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (176 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 10.

m. Emission Limitation -

109.54 TPY CO

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the AP-42, Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal, and dividing by 2,000 pounds per ton. The annual CO emissions are the sum of the monthly CO emission rates for the calendar year.

n. Emission Limitation -

236.34 tons CO, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606,

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B607, and B608 combined by the allowable emission rate of 0.18 lb CO/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

o. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -
Compliance shall be determined through visible emissions 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).

2. Emissions Testing

By February 2004 and every three years thereafter, the permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 0.10 lb/mmBtu actual heat input and 17.6 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

By February 2004 and every three years thereafter, the permittee shall conduct, or have conducted, sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 2.00 lb/mmBtu actual heat input and 352 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Method 6.

The tests shall be conducted while the emissions unit is operating at maximum capacity (176 mmBtu/hour).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

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Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. 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 monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-182 issued September 30, 1981 for emissions unit B607.

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|--|
| B607 - 176 mmBtu/hour coal-fired spreader stoker boiler No. 5, with baghouse control, Building 31240 (2012) | None | None |

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

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None

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Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 specified in narrative form following the table.

| <u>Operations, Property, and/or Equipment</u> | <u>Applicable Rules/Requirements</u> |
|---|---|
| B608 - 176 mmBtu/hour coal-fired spreader stoker boiler No. 6, with baghouse control, Building 31240 (2016) | 40 CFR Part 51, Appendix S OAC rules 3745-31-21 through 3745-31-27 |
| | OAC rule 3745-31-05(A)(3) |

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| | Applicable Emissions Limitations/Control Measures | |
|---------------------------|---|--|
| OAC rule 3745-17-07(A)(1) | Particulate emissions shall not exceed 0.10 lb/mmBtu actual heat input; Sulfur dioxide (SO2) emissions shall not exceed 2.00 lbs/mmBtu actual heat input; 155 tons particulate emissions, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. | combined. 352 lbs/hour SO2 1182.72 TPY SO2 from this emissions unit with total SO2 emissions not to exceed 2626 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. Nitrogen oxide (NOx) emissions shall not exceed 0.6 lb/mmBtu actual heat input |
| OAC rule 3745-17-10(C)(1) | 2626 tons SO2, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. | 350.32 TPY NOx from this emissions unit with total NOx emissions not to exceed 788 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. |
| OAC rule 3745-18-35(A) | The requirements of this rule also include compliance with the requirements of 40 CFR Part 51, Appendix S; OAC rules 3745-31-21 through 3745-31-27; and OAC rule 3745-17-07(A)(1). 17.6 lbs/hour particulate emissions 59.14 TPY particulate emissions from this emissions unit with total particulate emissions not to exceed 155 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 | Carbon monoxide (CO) emissions shall not exceed 0.18 lb/mmBtu actual heat input 109.54 TPY CO from this emissions unit with total CO emissions not to exceed 236.34 tons, as a rolling, 12-month summation from the coal-fired boilers at Buildings 20770 and 31240 identified as emissions units B309, B310, B311, B606, B607, and B608 combined. Visible particulate emissions shall not exceed 20% opacity, as a six-minute average, except as provided by rule The emission limitation specified by this rule is less stringent than the emission |

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limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to 40 CFR Part 51, Appendix S and OAC rules 3745-31-21 through 3745-31-27.

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

1. The quality of coal burned in this emissions unit shall meet a sulfur content that is sufficient to comply with the allowable emission limit in Section A.I. above.
2. Two of the three coal-fired boilers identified as B606, B607, and B608 shall be completely shutdown during the periods from March 15 to May 15 and October 15 to November 15.
3. The maximum allowable total heat input for the three boilers identified as B606, B607, and B608 combined is limited to 443 mmBtu/hour. This total combined heat input of 443 mmBtu/hour corresponds to a coal input of 16.4 tons per hour. At no time shall the coal input rate from all three boilers, identified as B606, B607, and B608, combined exceed 16.4 tons per hour (as an average over any one-hour period).
4. The pressure drop across the baghouse shall be maintained within the range of 0.5 to 6.5 inches of water while the emissions unit is in operation.
5. The maximum annual heat input for emissions units B309, B310, B311, B606, B607, and B608 combined shall not exceed 2,626,000 mmBtu, as a rolling, 12-month summation.

To ensure enforceability during the first 12 calendar months of operation following final issuance of this permit, the permittee shall not exceed the heat input levels from emissions units B309, B310, B311, B606, B607, and B608 combined specified in the following table:

Maximum

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Allowable

| <u>Month(s)</u> | <u>Cumulative Heat Input (mmBtu)</u> |
|-----------------|--------------------------------------|
| 1 | 292,000 |
| 1 - 2 | 584,000 |
| 1 - 3 | 876,000 |
| 1 - 4 | 1,168,000 |
| 1 - 5 | 1,460,000 |
| 1 - 6 | 1,752,000 |
| 1 - 7 | 2,044,000 |
| 1 - 8 | 2,336,000 |
| 1 - 9 | 2,626,000 |
| 1 - 10 | 2,626,000 |
| 1 - 11 | 2,626,000 |
| 1 - 12 | 2,626,000 |

After the first 12 calendar months of operation following issuance of this permit, compliance with the annual heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined shall be based upon a rolling, 12-month summation of the heat inputs.

III. Monitoring and/or Recordkeeping Requirements

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

Each continuous monitoring system consists of all the equipment used to acquire data and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data recording/processing hardware and software.

The permittee shall maintain a certification letter from the Ohio EPA documenting that the continuous opacity monitoring system has been certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter of certification shall be made available to the Director (the appropriate Ohio EPA District Office or local air agency) upon request.

The permittee shall maintain records of the following data obtained by the continuous opacity monitoring system: percent opacity on a 6-minute block average basis, results of daily zero/span calibration checks, and magnitude of manual calibration adjustments.

2. The permittee shall maintain monthly records of the following information:

- a. The total quantity of coal burned, in tons.
 - b. The average ash content (percent) of the coal burned.
 - c. The average sulfur content (percent) of the coal burned.
 - d. The average heat content of the coal burned, in Btu/pound.
 - e. The average SO₂ emission rate from the coal burned, in lbs SO₂/mmBtu actual heat input.
 - f. The total heat input for this emissions unit, in mmBtu/month.
 - g. The total combined heat input for emissions units B309, B310, B311, B606, B607, and B608, in mmBtu/month.
 - h. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined. Also, for the first 12 calendar months of operation following final issuance of this permit, the permittee shall record the cumulative heat input rates for emissions units B309, B310, B311, B606, B607, and B608 combined for each calendar month.
 - i. The calculated particulate, SO₂, NO_x, and CO emission rates for this emissions unit, in tons/month (see V.1. for calculation methodology).
 - j. The total combined particulate, SO₂, NO_x, and CO emission rates from emissions units B309, B310, B311, B606, B607, and B608, in tons/month.
 - k. Beginning after the first 12 calendar months of operation following final issuance of this permit, the rolling, 12-month summation of the particulate, SO₂, NO_x, and CO emission rates for emissions units B309, B310, B311, B606, B607, and B608 combined.
 - l. The boilers identified as B606, B607, and B608 which are shutdown during the specified time periods identified in A.II.2.
3. The permittee shall collect representative grab samples of the coal burned in this emissions unit daily. Each sample shall be collected from the coal conveyor belt. The coal sampling shall be performed

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in accordance with ASTM method D2234, Collection of a Gross Sample of Coal. At the end of each calendar month, all of the grab samples which were collected 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 by the appropriate Ohio EPA District Office or local air agency.

4. To obtain an exemption from the visible emissions limitations specified in OAC rule 3745-17-07(A), the permittee shall operate and maintain a temperature monitor that measures the temperature of the boiler exhaust gases entering the baghouse (a) during all periods of start-up until the baghouse is operational or until the inlet temperature of the baghouse achieves a temperature of three hundred fifty (350) degrees Fahrenheit (b) during all periods of shutdown until the inlet temperature of the baghouse drops below the temperature of three hundred fifty (350) degrees Fahrenheit. An electronic or hardcopy record of the temperatures during periods of start-up and shutdown shall be maintained.

The temperature monitor shall be installed, calibrated, operated, and maintained in accordance with manufacturer's recommendations, with any modifications deemed necessary by the permittee, and shall be capable of accurately measuring the temperature of the boiler exhaust gases in units of degrees Fahrenheit.

5. The permittee shall maintain daily records of the following information in order to determine compliance with the hourly coal input usage rate:

- a. The total quantity of coal burned in this emissions unit, in tons.
- b. The total hours of operation.
- c. The average hourly coal input for this emissions unit, in tons/hour (i.e., (a)/(b)).
- d. The total average hourly coal input from emissions units B606, B607, and B608 combined.

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6. 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.

IV. Reporting Requirements

1. The permittee shall submit reports within 30 days following the end of each calendar quarter to the appropriate Ohio EPA District Office or local air agency documenting all instances of opacity values in excess of the 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 reports shall also identify any excursions of the start-up and shutdown provisions specified in OAC rule 3745-17-07(A)(3) and document 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.

2. 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 30, April 30, July 30, and October 30 of each year and shall address the data obtained during the previous calendar quarter.

3. Quarterly reports shall be submitted concerning the quality and quantity of the coal burned in this emissions unit. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:

- a. The total quantity of coal burned, in tons.
- b. The average ash content (percent) of the coal burned.
- c. The average sulfur content (percent) of the coal burned.
- d. The average heat content (Btu/pound) of the coal burned.
- e. The average sulfur dioxide emissions rate (lbs SO₂/mmBtu actual heat input) from the coal burned.

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.

4. The permittee shall submit quarterly reports which identify the following:
 - a. Any exceedances of the hourly coal input rate from emissions units B606, B607, and B608 combined, and the actual average hourly coal input rate for each such exceedance.
 - b. All periods of time during which the pressure drop across the baghouse did not comply with the allowable range specified above.
 - c. Any exceedances of the rolling, 12-month heat input limitation for emissions units B309, B310, B311, B606, B607, and B608 combined, and for the first 12 calendar months of operation following final issuance of this permit, all exceedances of the maximum allowable cumulative combined heat input rates.
 - d. Any exceedances of the rolling, 12-month particulate, SO₂, NO_x, and/or CO emission rates from emissions units B309, B310, B311, B606, B607, and B608 combined.

These reports shall be submitted in accordance with Section A.1.c. of the General Terms and Conditions.

V. Testing Requirements

1. Compliance with the emission limitation(s) in Section A.I. of these terms and conditions shall be determined in accordance with the following method(s):
 - a. Emission Limitation -
0.10 lb particulate emissions/mmBtu actual heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on February 5, 2001 with results of 0.014 lb particulate emissions/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

b. Emission Limitation -

2.00 lbs sulfur dioxide/mmBtu actual heat input

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on February 5, 2001 with results of 1.93 lbs sulfur dioxide/mmBtu actual heat input. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2. Compliance can also be based upon the record keeping requirements specified in A.III.2. and the use of the equation contained in OAC rule 3745-18-04(F).

c. Emission Limitation -

155 tons particulate emissions, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.10 lb particulate emissions/mmBtu actual heat input, and

dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

d. Emission Limitation -

2626 tons SO₂, as a rolling, 12-month summation from B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 2.00 lbs SO₂/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

e. Emission Limitation -

17.6 lbs/hour particulate emissions

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Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on February 5, 2001 with results of 1.98 lbs particulate emissions/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

f. Emission Limitation -

59.14 TPY particulate emissions

Applicable Compliance Method -
Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 0.014 lb particulate emissions/mmBtu determined during a February 5, 2001 performance test shall be used in this calculation.) The annual particulate emissions are the sum of the monthly particulate emissions rates for the calendar year.

g. Emission Limitation -

352 lbs/hour SO₂

Applicable Compliance Method -
Compliance with this limit was demonstrated during a performance test conducted on

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February 5, 2001 with results of 271.2 lbs sulfur dioxide/hour. Compliance will also be shown through the results of additional performance testing as required in Section A.V.2.

h. Emission Limitation -

1182.72 TPY SO₂

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the average heat content (mmBtu/ton) of the coal burned for the calendar month. The total heat input for the month is then multiplied by the average emission rate (in lb/mmBtu) determined during the most recent performance test that demonstrated compliance, and dividing by 2,000 pounds per ton. (Until additional tests are conducted, the average emission rate of 1.93 lbs sulfur dioxide/mmBtu determined during a February 5, 2001 performance test shall be used in this calculation.) The annual SO₂ emissions are the sum of the monthly emission rates for the calendar year.

i. Emission Limitation -

0.6 lb NO_x/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the facility tested emission factor of 16 lbs NO_x/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (176 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 7.

j. Emission Limitation -

350.32 TPY NO_x

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the facility tested emission factor of 16 lbs NO_x/ton of coal, and dividing by 2,000 pounds per ton. The annual NO_x emissions are the sum of the monthly NO_x emission rates for the calendar year.

k. Emission Limitation -

788 tons NO_x, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.6 lb NO_x/mmBtu actual

heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

l. Emission Limitation -

0.18 lb CO/mmBtu actual heat input

Applicable Compliance Method -

Compliance shall be determined by multiplying the maximum hourly coal burning capacity by the AP-42 Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal and dividing by the maximum allowable hourly heat input capacity of the boiler (176 mmBtu/hour). If required, compliance can be demonstrated through stack testing in accordance with 40 CFR Part 60, Appendix A, USEPA Method 10.

m. Emission Limitation -

109.54 TPY CO

Applicable Compliance Method -

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total amount of coal burned (in tons) for the month by the AP-42, Table 1.1-3 (9/98) emission factor of 5 lbs CO/ton of coal, and dividing by 2,000 pounds per ton. The annual CO emissions are the sum of the monthly CO emission rates for the calendar year.

n. Emission Limitation -

236.34 tons CO, as a rolling, 12-month summation from emissions units B309, B310, B311, B606, B607, and B608 combined

Applicable Compliance Method -

Emissions Unit ID: B608

Compliance shall be based upon record keeping as specified in A.III.2. and shall be determined by multiplying the total heat input for the rolling, 12-month period from emissions units B309, B310, B311, B606, B607, and B608 combined by the allowable emission rate of 0.18 lb CO/mmBtu actual heat input, and dividing by 2,000 lbs/ton. This calculation presumes that compliance with the allowable lb/mmBtu emission rate is maintained.

o. Emission Limitation -

20% opacity, as a six-minute average

Applicable Compliance Method -

Compliance shall be determined through visible emissions 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).

2. Emissions Testing

By February 2004 and every three years thereafter, the permittee shall conduct, or have conducted, particulate emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 0.10 lb/mmBtu actual heat input and 17.6 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures specified in OAC rule 3745-17-03(B)(9).

By February 2004 and every three years thereafter, the permittee shall conduct, or have conducted, sulfur dioxide emission testing for this emissions unit to demonstrate compliance with the allowable mass emission rate of 2.00 lb/mmBtu actual heat input and 352 lbs/hour in accordance with 40 CFR Part 60, Appendix A, Method 6.

The tests shall be conducted while the emissions unit is operating at maximum capacity (176 mmBtu/hour).

Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the appropriate Ohio EPA District Office or local air agency. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the test(s), and the person(s) who will be conducting the test(s). Failure to submit such notification for review and approval prior to the test(s) may result in the Ohio EPA District Office's or local air agency's refusal to accept the results of the emission test(s).

Issued: To be entered upon final issuance

Personnel from the appropriate Ohio EPA District Office or local air agency shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

A comprehensive written report on the results of the emissions test(s) shall be signed by the person or persons responsible for the tests and submitted to the appropriate Ohio EPA District Office or local air agency within 30 days following completion of the test(s). The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the appropriate Ohio EPA District Office or local air agency.

VI. Miscellaneous Requirements

1. 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 monitoring system must be kept on site and available for inspection during regular office hours.
2. This PTI is a Chapter 31 modification replacing PTI 08-183 issued September 30, 1981 for emissions unit B608.

B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(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 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> |
|---|--------------------------------------|--|
| B608 - 176 mmBtu/hour coal-fired spreader stoker boiler No. 6, with baghouse control, Building 31240 (2016) | None | None |

2. Additional Terms and Conditions

2.a None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

NEW SOURCE REVIEW FORM B

PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB

SIC CODE 9711 SCC CODE 1-01-002-04 EMISSIONS UNIT ID B309

EMISSIONS UNIT DESCRIPTION 183 mmBtu/hour coal-fired spreader stoker boiler No. 4, with baghouse control, limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2030)

DATE INSTALLED January 1979

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|--------------------|-------------------------|---------------------------------|---|---------------------------------|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | attainment | 0.10 lb/mmBtu; 16.9 lbs/hour | 56.78 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined | 0.10 lb/mmBtu; 16.9 lbs/hour | 56.78 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined |
| PM ₁₀ | | | | | |
| Sulfur Dioxide | attainment | 2.00 lbs/mmBtu; 338 lbs/hour | 1135.68 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined | 2.00 lbs/mmBtu; 338 lbs/hour | 1135.68 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined |
| Organic Compounds | | | | | |
| Nitrogen Oxides | attainment | 0.6 lb/mmBtu | 336.54 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.6 lb/mmBtu | 336.54 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Carbon Monoxide | attainment | 0.18 lb/mmBtu | 105.17 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.18 lb/mmBtu | 105.17 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Lead | | | | | |
| Other: Air Toxics | | | | | |

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY? Yes

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

NEW SOURCE REVIEW FORM B

PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SC

PTI Num

FACILITY

Emissions Unit ID: B608

FACILITY DESCRIPTION national security

CITY/TWP WPAFB

SIC CODE 9711

SCC CODE 1-01-002-04

EMISSIONS UNIT ID B310

EMISSIONS UNIT DESCRIPTION 183 mmBtu/hour coal-fired spreader stoker boiler No. 3, with baghouse control, limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2028)

DATE INSTALLED

January 1979

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|--------------------|-------------------------|---------------------------------|---|---------------------------------|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | attainment | 0.10 lb/mmBtu; 16.9 lbs/hour | 56.78 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined | 0.10 lb/mmBtu; 16.9 lbs/hour | 56.78 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined |
| PM ₁₀ | | | | | |
| Sulfur Dioxide | attainment | 2.00 lbs/mmBtu; 338 lbs/hour | 1135.68 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined | 2.00 lbs/mmBtu; 338 lbs/hour | 1135.68 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined |
| Organic Compounds | | | | | |
| Nitrogen Oxides | attainment | 0.6 lb/mmBtu | 336.54 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.6 lb/mmBtu | 336.54 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Carbon Monoxide | attainment | 0.18 lb/mmBtu | 105.17 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.18 lb/mmBtu | 105.17 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Lead | | | | | |
| Other: Air Toxics | | | | | |

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY? Yes

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

NEW SOURCE REVIEW FORM B

PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB _____

Emissions Unit ID: B608

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SC

PTI Num

FACILITY

Emissions Unit ID: B608

FACILITY DESCRIPTION national security

CITY/TWP WPAFB

SIC CODE 9711 SCC CODE 1-01-002-04 EMISSIONS UNIT ID B311

EMISSIONS UNIT DESCRIPTION 183 mmBtu/hour coal-fired spreader stoker boiler No. 5, with baghouse control, limited to a maximum heat input of 169 mmBtu/hour, Building 20770 (2033)

DATE INSTALLED January 1979

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|--------------------|-------------------------|---------------------------------|---|---------------------------------|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | attainment | 0.10 lb/mmBtu; 16.9 lbs/hour | 56.78 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined | 0.10 lb/mmBtu; 16.9 lbs/hour | 56.78 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined |
| PM ₁₀ | | | | | |
| Sulfur Dioxide | attainment | 2.00 lbs/mmBtu; 338 lbs/hour | 1135.68 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined | 2.00 lbs/mmBtu; 338 lbs/hour | 1135.68 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined |
| Organic Compounds | | | | | |
| Nitrogen Oxides | attainment | 0.6 lb/mmBtu | 336.54 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.6 lb/mmBtu | 336.54 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Carbon Monoxide | attainment | 0.18 lb/mmBtu | 105.17 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.18 lb/mmBtu | 105.17 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Lead | | | | | |
| Other: Air Toxics | | | | | |

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY? Yes

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

NEW SOURCE REVIEW FORM B

PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB _____

Emissions Unit ID: B608

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SC

PTI Num

FACILITY

Emissions Unit ID: B608

FACILITY DESCRIPTION national security

CITY/TWP WPAFB

SIC CODE 9711

SCC CODE 1-01-002-04

EMISSIONS UNIT ID B606

EMISSIONS UNIT DESCRIPTION 176 mmBtu/hour coal-fired spreader stoker boiler No. 4, with baghouse control, Building 31240 (2008)

DATE INSTALLED

January 1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|--------------------|-------------------------|---------------------------------|---|---------------------------------|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | attainment | 0.10 lb/mmBtu; 17.6 lbs/hour | 59.14 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined | 0.10 lb/mmBtu; 17.6 lbs/hour | 59.14 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined |
| PM ₁₀ | | | | | |
| Sulfur Dioxide | attainment | 2.00 lbs/mmBtu; 352 lbs/hour | 1182.72 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined | 2.00 lbs/mmBtu; 352 lbs/hour | 1182.72 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined |
| Organic Compounds | | | | | |
| Nitrogen Oxides | attainment | 0.6 lb/mmBtu | 350.52 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.6 lb/mmBtu | 350.52 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Carbon Monoxide | attainment | 0.18 lb/mmBtu | 109.54 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.18 lb/mmBtu | 109.54 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Lead | | | | | |
| Other: Air Toxics | | | | | |

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY? Yes

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

NEW SOURCE REVIEW FORM B

PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB _____

Emissions Unit ID: B608

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no
OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$ _____

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SC

PTI Num

FACILITY

Emissions Unit ID: B608

FACILITY DESCRIPTION national security

CITY/TWP WPAFB

SIC CODE 9711 SCC CODE 1-01-002-04 EMISSIONS UNIT ID B607

EMISSIONS UNIT DESCRIPTION 176 mmBtu/hour coal-fired spreader stoker boiler No. 5, with baghouse control, Building 31240 (2012)

DATE INSTALLED January 1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|--------------------|-------------------------|---------------------------------|---|---------------------------------|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | attainment | 0.10 lb/mmBtu; 17.6 lbs/hour | 59.14 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined | 0.10 lb/mmBtu; 17.6 lbs/hour | 59.14 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined |
| PM ₁₀ | | | | | |
| Sulfur Dioxide | attainment | 2.00 lbs/mmBtu; 352 lbs/hour | 1182.72 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined | 2.00 lbs/mmBtu; 352 lbs/hour | 1182.72 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined |
| Organic Compounds | | | | | |
| Nitrogen Oxides | attainment | 0.6 lb/mmBtu | 350.52 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.6 lb/mmBtu | 350.52 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Carbon Monoxide | attainment | 0.18 lb/mmBtu | 109.54 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.18 lb/mmBtu | 109.54 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Lead | | | | | |
| Other: Air Toxics | | | | | |

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY? Yes

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

NEW SOURCE REVIEW FORM B

PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB _____

Emissions Unit ID: B608

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? _____ YES X NO

IDENTIFY THE AIR CONTAMINANTS: _____

NEW SC

PTI Num

FACILITY

Emissions Unit ID: B608

FACILITY DESCRIPTION national security

CITY/TWP WPAFB

SIC CODE 9711

SCC CODE 1-01-002-04

EMISSIONS UNIT ID B608

EMISSIONS UNIT DESCRIPTION 176 mmBtu/hour coal-fired spreader stoker boiler No. 6, with baghouse control, Building 31240 (2016)

DATE INSTALLED

January 1978

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

| Pollutants | Air Quality Description | Actual Emissions Rate | | PTI Allowable | |
|--------------------|-------------------------|---------------------------------|---|--------------------------------|---|
| | | Short Term Rate | Tons Per Year | Short Term Rate | Tons Per Year |
| Particulate Matter | attainment | 0.10 lb/mmBtu; 17.6 lbs/hour | 59.14 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined | 0.10 lb/mmBtu 17.6 lbs/hour | 59.14 TPY 155 TPY from B309, B310, B311, B606, B07, and B608 combined |
| PM ₁₀ | | | | | |
| Sulfur Dioxide | attainment | 2.00 lbs/mmBtu 352 lbs/hour | 1182.72 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined | 2.00 lbs/mmBtu 352 lbs/hour | 1182.72 TPY 2626 TPY from B309, B310, B311, B606, B07, and B608 combined |
| Organic Compounds | | | | | |
| Nitrogen Oxides | attainment | 0.6 lb/mmBtu | 350.52 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.6 lb/mmBtu | 350.52 TPY 788 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Carbon Monoxide | attainment | 0.18 lb/mmBtu | 109.54 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined | 0.18 lb/mmBtu | 109.54 TPY 236.34 TPY from B309, B310, B311, B606, B607, and B608 combined |
| Lead | | | | | |
| Other: Air Toxics | | | | | |

APPLICABLE FEDERAL RULES:

NSPS?

NESHAP?

PSD?

OFFSET POLICY? Yes

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Enter Determination

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PTI Number: 08-04162 Facility ID: 0829700441

FACILITY NAME Wright Patterson Air Force Base

FACILITY DESCRIPTION national security CITY/TWP WPAFB

Emissions Unit ID: B608

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? no

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? YES X NO

IDENTIFY THE AIR CONTAMINANTS: