



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

1/29/2016

Mr. John Rambo
Youngstown Thermal
205 North Avenue
Youngstown, OH 44502

RE: FINALAIR POLLUTION PERMIT-TO-INSTALL
Facility ID: 0250110024
Permit Number: P0120126
Permit Type: Administrative Modification
County: Mahoning

Certified Mail

No	TOXIC REVIEW
No	PSD
No	SYNTHETIC MINOR TO AVOID MAJOR NSR
No	CEMS
Yes	MACT/GACT
No	NSPS
No	NESHAPS
No	NETTING
No	MAJOR NON-ATTAINMENT
No	MODELING SUBMITTED
No	MAJOR GHG
No	SYNTHETIC MINOR TO AVOID MAJOR GHG

Dear Permit Holder:

Enclosed please find a final Ohio Environmental Protection Agency (EPA) Air Pollution Permit-to-Install (PTI) which will allow you to install or modify the described emissions unit(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, we urge you to read it carefully. Because this permit contains conditions and restrictions, please read it very carefully. In this letter you will find the information on the following topics:

- **How to appeal this permit**
- **How to save money, reduce pollution and reduce energy consumption**
- **How to give us feedback on your permitting experience**
- **How to get an electronic copy of your permit**
- **What should you do if you notice a spill or environmental emergency?**

How to appeal this permit

The issuance of this PTI is a final action of the Director and may be appealed to the Environmental Review Appeals Commission pursuant to Section 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director's action. The appeal must be accompanied by a filing fee of \$70.00, made payable to "Ohio Treasurer Josh Mandel," which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, OH 43215

How to save money, reduce pollution and reduce energy consumption

The Ohio EPA is encouraging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Compliance Assistance and Pollution Prevention at (614) 644-3469. Additionally, all or a portion of the capital expenditures related to installing air pollution control equipment under this permit may be eligible for financing and State tax exemptions through the Ohio Air Quality Development Authority (OAQDA) under Ohio Revised Code Section 3706. For more information, see the OAQDA website: www.ohioairquality.org/clean_air

How to give us feedback on your permitting experience

Please complete a survey at www.epa.ohio.gov/survey.aspx and give us feedback on your permitting experience. We value your opinion.

How to get an electronic copy of your permit

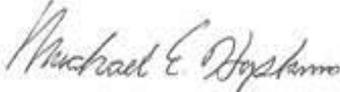
This permit can be accessed electronically via the eBusiness Center: Air Services in Microsoft Word format or in Adobe PDF on the Division of Air Pollution Control (DAPC) Web page, www.epa.ohio.gov/dapc by clicking the "Search for Permits" link under the Permitting topic on the Programs tab.

What should you do if you notice a spill or environmental emergency?

Any spill or environmental emergency which may endanger human health or the environment should be reported to the Emergency Response 24-HOUR EMERGENCY SPILL HOTLINE toll-free at (800) 282-9378. Report non-emergency complaints to the appropriate district office or local air agency.

If you have any questions regarding your permit, please contact Ohio EPA DAPC, Northeast District Office at (330)963-1200 or the Office of Compliance Assistance and Pollution Prevention at (614) 644-3469.

Sincerely,



Michael E. Hopkins, P.E.
Assistant Chief, Permitting Section, DAPC

Cc: U.S. EPA
Ohio EPA-NEDO; Pennsylvania; West Virginia



FINAL

**Division of Air Pollution Control
Permit-to-Install
for
Youngstown Thermal**

Facility ID:	0250110024
Permit Number:	P0120126
Permit Type:	Administrative Modification
Issued:	1/29/2016
Effective:	1/29/2016



Division of Air Pollution Control
Permit-to-Install
for
Youngstown Thermal

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Final Permit-to-Install and Operate
Youngstown Thermal
Permit Number: P0120126
Facility ID: 0250110024
Effective Date: 1/29/2016

Authorization

Facility ID: 0250110024
Facility Description:
Application Number(s): A0055060, A0055150
Permit Number: P0120126
Permit Description: Administrative modification permit for a natural gas-fired boiler (B001) and three coal-fired boilers (B002, B003, and B004) with federally enforceable restrictions to limit facility-wide HAP emissions to avoid being subject to the requirements of Major Source Boiler MACT (40 CFR Part 63, Subpart DDDDD), and restrict coal combusted in coal-fired boilers in order to meet limited-use boiler requirements.
Permit Type: Administrative Modification
Permit Fee: \$0.00
Issue Date: 1/29/2016
Effective Date: 1/29/2016

This document constitutes issuance to:

Youngstown Thermal
205 North Ave
Youngstown, OH 44502-1172

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

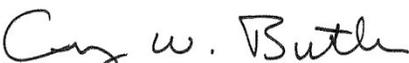
Ohio Environmental Protection Agency (EPA) District Office or local air agency responsible for processing and administering your permit:

Ohio EPA DAPC, Northeast District Office
2110 East Aurora Road
Twinsburg, OH 44087
(330)963-1200

The above named entity is hereby granted a Permit-to-Install for the emissions unit(s) listed in this section pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency


Craig W. Butler
Director



Authorization (continued)

Permit Number: P0120126

Permit Description: Administrative modification permit for a natural gas-fired boiler (B001) and three coal-fired boilers (B002, B003, and B004) with federally enforceable restrictions to limit facility-wide HAP emissions to avoid being subject to the requirements of Major Source Boiler MACT (40 CFR Part 63, Subpart DDDDD), and restrict coal combusted in coal-fired boilers in order to meet limited-use boiler requirements.

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

Emissions Unit ID:	B001
Company Equipment ID:	Boiler #1
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable

Group Name: Coal-Fired Boilers

Emissions Unit ID:	B002
Company Equipment ID:	Boiler #2
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B003
Company Equipment ID:	Boiler #3
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable
Emissions Unit ID:	B004
Company Equipment ID:	Boiler #4
Superseded Permit Number:	
General Permit Category and Type:	Not Applicable



Final Permit-to-Install and Operate
Youngstown Thermal
Permit Number: P0120126
Facility ID: 0250110024
Effective Date: 1/29/2016

A. Standard Terms and Conditions

1. Federally Enforceable Standard Terms and Conditions

- a) All Standard Terms and Conditions are federally enforceable, with the exception of those listed below which are enforceable under State law only:
- (1) Standard Term and Condition A.2.a), Severability Clause
 - (2) Standard Term and Condition A.3.c) through A. 3.e)General Requirements
 - (3) Standard Term and Condition A.6.c) and A. 6.d), Compliance Requirements
 - (4) Standard Term and Condition A.9., Reporting Requirements
 - (5) Standard Term and Condition A.10., Applicability
 - (6) Standard Term and Condition A.11.b) through A.11.e), Construction of New Source(s) and Authorization to Install
 - (7) Standard Term and Condition A.14., Public Disclosure
 - (8) Standard Term and Condition A.15., Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations
 - (9) Standard Term and Condition A.16., Fees
 - (10) Standard Term and Condition A.17., Permit Transfers

2. Severability Clause

- a) A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.
- b) All terms and conditions designated in parts B and C of this permit are federally enforceable as a practical matter, if they are required under the Act, or any of its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. Terms and conditions in parts B and C of this permit shall not be federally enforceable and shall be enforceable under State law only, only if specifically identified in this permit as such.

3. General Requirements

- a) Any noncompliance with the federally enforceable terms and conditions of this permit constitutes a violation of the Act, and is grounds for enforcement action or for permit revocation, revocation and re-issuance, or modification.

- b) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the federally enforceable terms and conditions of this permit.
- c) This permit may be modified, revoked, or revoked and reissued, for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or revocation, or of a notification of planned changes or anticipated noncompliance does not stay any term and condition of this permit.
- d) This permit does not convey any property rights of any sort, or any exclusive privilege.
- e) The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying or revoking this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Director or an authorized representative of the Director, copies of records required to be kept by this permit. For information claimed to be confidential in the submittal to the Director, if the Administrator of the U.S. EPA requests such information, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality.

4. Monitoring and Related Record Keeping and Reporting Requirements

- a) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - (1) The date, place (as defined in the permit), and time of sampling or measurements.
 - (2) The date(s) analyses were performed.
 - (3) The company or entity that performed the analyses.
 - (4) The analytical techniques or methods used.
 - (5) The results of such analyses.
 - (6) The operating conditions existing at the time of sampling or measurement.
- b) Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c) Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - (1) Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.

- (2) Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the Ohio EPA DAPC, Northeast District Office. The written reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See A.15. below if no deviations occurred during the quarter.
 - (3) Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted to the Ohio EPA DAPC, Northeast District Office every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - (4) This permit is for an emissions unit located at a Title V facility. Each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d) The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction, i.e., upset, of any emissions units or any associated air pollution control system(s) shall be reported to the Ohio EPA DAPC, Northeast District Office in accordance with paragraph (B) of OAC rule 3745-15-06. (The definition of an upset condition shall be the same as that used in OAC rule 3745-15-06(B)(1) for a malfunction.) The verbal and written reports shall be submitted pursuant to OAC rule 3745-15-06.

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

6. Compliance Requirements

- a) All applications, notifications or reports required by terms and conditions in this permit to be submitted or "reported in writing" are to be submitted to Ohio EPA through the Ohio EPA's eBusiness Center: Air Services web service ("Air Services"). Ohio EPA will accept hard copy submittals on an as-needed basis if the permittee cannot submit the required documents through the Ohio EPA eBusiness Center. In the event of an alternative hard copy submission in lieu of the eBusiness Center, the post-marked date or the date the document is delivered in person will be recognized as the date submitted. Electronic submission of applications, notifications or reports required to be submitted to Ohio EPA fulfills the requirement to submit the required information to the Director, the appropriate Ohio EPA District Office or contracted

local air agency, and/or any other individual or organization specifically identified as an additional recipient identified in this permit unless otherwise specified. Consistent with OAC rule 3745-15-03, the electronic signature date shall constitute the date that the required application, notification or report is considered to be "submitted". Any document requiring signature may be represented by entry of the personal identification number (PIN) by responsible official as part of the electronic submission process or by the scanned attestation document signed by the Authorized Representative that is attached to the electronically submitted written report.

Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a Responsible Official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.

- b) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
- (1) At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - (2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - (3) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - (4) As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c) The permittee shall submit progress reports to the Ohio EPA DAPC, Northeast District Office concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually or more frequently if specified in the applicable requirement or by the Director of the Ohio EPA. Progress reports shall contain the following:
- (1) Dates for achieving the activities, milestones, or compliance required in any schedule of compliance, and dates when such activities, milestones, or compliance were achieved.
 - (2) An explanation of why any dates in any schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

7. Best Available Technology

As specified in OAC Rule 3745-31-05, new sources that must employ Best Available Technology (BAT) shall comply with the Applicable Emission Limitations/Control Measures identified as BAT for each subject emissions unit.

8. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

9. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a) Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the Ohio EPA DAPC, Northeast District Office.
- 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 Ohio EPA DAPC, Northeast District Office. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

10. Applicability

This Permit-to-Install is applicable only to the emissions unit(s) identified in the Permit-to-Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s) not exempt from the requirement to obtain a Permit-to-Install.

11. Construction of New Sources(s) and Authorization to Install

- a) This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.
- b) If applicable, authorization to install any new emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of installation or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation. This deadline may be extended by up to 12 months if application is made to the

Director within a reasonable time before the termination date and the permittee shows good cause for any such extension.

- c) The permittee may notify Ohio EPA of any emissions unit that is permanently shut down (i.e., the emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31) by submitting a certification from the authorized official that identifies the date on which the emissions unit was permanently shut down. Authorization to operate the affected emissions unit shall cease upon the date certified by the authorized official that the emissions unit was permanently shut down. At a minimum, notification of permanent shut down shall be made or confirmed by marking the affected emissions unit(s) as "permanently shut down" in "Air Services" along with the date the emissions unit(s) was permanently removed and/or disabled. Submitting the facility profile update electronically will constitute notifying the Director of the permanent shutdown of the affected emissions unit(s).
- d) The provisions of this permit shall cease to be enforceable for each affected emissions unit after the date on which an emissions unit is permanently shut down (i.e., emissions unit has been physically removed from service or has been altered in such a way that it can no longer operate without a subsequent "modification" or "installation" as defined in OAC Chapter 3745-31). All records relating to any permanently shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law. All reports required by this permit must be submitted for any period an affected emissions unit operated prior to permanent shut down. At a minimum, the permit requirements must be evaluated as part of the reporting requirements identified in this permit covering the last period the emissions unit operated.

Unless otherwise exempted, no emissions unit certified by the responsible official as being permanently shut down may resume operation without first applying for and obtaining a permit pursuant to OAC Chapter 3745-31 and OAC Chapter 3745-77 if the restarted operation is subject to one or more applicable requirements.

- e) The permittee shall comply with any residual requirements related to this permit, such as the requirement to submit a deviation report, air fee emission report, or other any reporting required by this permit for the period the operating provisions of this permit were enforceable, or as required by regulation or law. All reports shall be submitted in a form and manner prescribed by the Director. All records relating to this permit must be maintained in accordance with law.

12. Permit-To-Operate Application

The permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77. The permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if operation of the proposed new or modified source(s) as authorized by this permit would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d) must be obtained before operating the source in a manner that would violate the existing Title V permit requirements.

13. Construction Compliance Certification

The applicant shall identify the following dates in the "Air Services" facility profile for each new emissions unit identified in this permit.

- a) Completion of initial installation date shall be entered upon completion of construction and prior to start-up.
- b) Commence operation after installation or latest modification date shall be entered within 90 days after commencing operation of the applicable emissions unit.

14. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

15. Additional Reporting Requirements When There Are No Deviations of Federally Enforceable Emission Limitations, Operational Restrictions, or Control Device Operating Parameter Limitations

If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters.

16. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable permit-to-install fees within 30 days after the issuance of any permit-to-install. The permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

17. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The new owner must update and submit the ownership information via the "Owner/Contact Change" functionality in "Air Services" once the transfer is legally completed. The change must be submitted through "Air Services" within thirty days of the ownership transfer date.

18. Risk Management Plans

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. ("Act"), the permittee shall comply with the requirement to register such a plan.

19. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain, the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.



Final Permit-to-Install and Operate
Youngstown Thermal
Permit Number: P0120126
Facility ID: 0250110024
Effective Date: 1/29/2016

B. Facility-Wide Terms and Conditions

1. All the following facility-wide terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only:

a) None.

2. The permittee is advised that this facility may be subject to the “Generally Available Control Technology” (GACT) requirements under Title 40 of the Code of Regulations, Part 63, Subpart JJJJJJ, the National Emissions Standards for Hazardous Air Pollutants Industrial, Commercial, and Institutional Boilers Area Sources. At this time the Ohio EPA is not accepting the delegating authority to enforce the standards promulgated under the Urban Air Toxics Strategy. The requirements of this rule, that are applicable to the area source(s) (for hazardous air pollutants) identified in this permit, shall be enforceable by U.S. EPA. Region 5. The complete requirements of this Subpart (including the Part 63 General Provisions) may be accessed via the Internet from the Electronic code of Federal Regulations (e-CFR) website <http://www.ecfr.gov/> or by contacting the Ohio EPA Northeast District Office.

3. Applicable Emissions Limitations and/or Control Requirements

a) The specific operation(s), property, and/or equipment that constitute the facility along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Facility-wide emissions shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
(1)	OAC rule 3745-31-05(D) (Synthetic Minor to Avoid being Major Source of HAP(s))	See B.3.b)(1), B.4.a), B.4.b), and B.4.c).

b) Additional Terms and Conditions

(1) The permittee shall limit the following facility-wide emissions, based upon a rolling, 12-month summation, to avoid being subject to the requirements of 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters:

a. 9.90 tons per year of each individual hazardous air pollutant (HAP); and

b. 24.90 tons per year of total combined HAPs.

4. Operational Restrictions

a) The permittee shall limit the fuel usage as follows:

(1) The permittee shall burn only natural gas in emissions unit B001;

(2) The permittee shall combust no more than 4,700 tons coal per year, based upon a rolling, 12-month summation, in emissions units B002, B003, and B004, combined; and

(3) The permittee shall burn no more than:

- a. 3,750 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B002;
 - b. 3,750 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B003; and
 - c. 3,550 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B004.
- b) The permittee shall limit each coal-fired boiler (B002, B003, and B004) in the facility to an average annual capacity factor of no more than 10 percent (10%), in order to meet the requirements of being a limited-use boiler.
- c) To ensure enforceability during the first 12 calendar months following the issuance of this permit, the permittee shall not exceed the following total coal combusted in emissions units B002, B003, and B004 combined, and the HAPs emission levels specified in the following table:

Month(s)	Maximum Allowable Cumulative Emissions of each individual HAP Facility-wide (tons)	Maximum Allowable Cumulative Emissions of total combined HAPs Facility-wide (tons)	Maximum Allowable Cumulative Coal Combusted in Emissions Units B002, B003, and B004, Combined (tons)
1	2.00	5.00	1,000
1-2	4.00	10.00	2,000
1-3	6.00	15.00	3,000
1-4	8.00	20.00	4,000
1-5	9.90	24.90	4,700
1-6	9.90	24.90	4,700
1-7	9.90	24.90	4,700
1-8	9.90	24.90	4,700
1-9	9.90	24.90	4,700
1-10	9.90	24.90	4,700
1-11	9.90	24.90	4,700
1-12	9.90	24.90	4,700

After the first 12 calendar months of operation following the issuance of this permit, compliance with the annual each individual HAP and total combined HAPs emission limitations, as well as the coal usage restriction shall be based upon a rolling, 12-month summation of each individual HAP and total combined HAPs emissions facility-wide, as well as coal combusted in emissions units B002, B003, and B004, combined.

5. Monitoring and/or Recordkeeping Requirements

a) The permittee shall maintain and keep monthly records of the following:

- (1) the type and total amount of actual fuel combusted in emissions unit B001, in scf;
- (2) the amount of coal combusted in each emissions unit B002, B003, and B004, in tons;
- (3) the rolling, 12-month summation of the total amount of coal combusted in each emissions unit B002, B003, and B004, in tons;
- (4) the monthly total amount of coal combusted in emissions units B002, B003, B004, combined, in tons;
- (5) the rolling, 12-month summation of the total amount of coal combusted in emissions units B002, B003, and B004, combined, in tons;
- (6) the monthly emissions of each individual HAP from combustion of natural gas, in tons, and shall be calculated as follows:

$$E_{NGHAP} = EF_{NGHAP}(F)/[(1,000 \text{ scf}/10^6 \text{ ft}^3)(2,000 \text{ lbs/ton})]$$

Where,

E_{NGHAP} = facility-wide emissions of each individual HAPs from combustion of natural gas, in tons;

EF_{NGHAP} = the emission factor for each individual HAP from combustion of natural gas, in lbs/10⁶ ft³ of natural gas combusted, from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-3 (7/98); and

F = total natural gas combusted, in scf, as recorded in section B.5.a)(1) above.

(7) the monthly emissions of each individual HAP from combustion of coal, in tons, and shall be calculated as follows:

a. for HCl emissions:

$$E_{COALHCl} = (HC)(MMBtu/1 \times 10^6 \text{ Btu}) (2,000 \text{ lbs/ton}) / (2,000 \text{ lbs/ton}) [\sum_{i=0}^n (EF * C)_i]$$

where:

$E_{COALHCl}$ = monthly total HCl emissions from combustion of coal, in tons;

EF = HCl emission factor for each coal-fired boiler, in lbs/MMBtu heat input, and shall be determined based upon the most recent stack test (the 2006 stack tests demonstrated HCl emission factors of 0.154 lb/MMBtu for B002, 0.152 lb/MMBtu for B003, and 0.167 lb/MMBtu for B004);

C = monthly total coal combusted in each coal-fired boiler, in tons, as recorded in section B.5.a)(2);

n = the total number of different coal-fired boilers;

i = subscript denoting an individual coal-fired boiler; and

HC = the monthly average coal heat content, in Btu/lb of coal combusted, and shall be determined based upon the average monthly coal analysis data, as monitored and recorded in section C.2.d)(1) and C.2.d)(2);

b. for each individual HAP, except HCl, emissions:

$$E_{\text{COALHAP}} = (EF_{\text{COALHAP}})(C_t)/(2,000 \text{ lbs/ton})$$

where:

E_{COALHAP} = monthly emissions of each individual HAP, except HCl, from combustion of coal, in tons;

EF_{COALHAP} = the emission factor for each individual HAP, except HCl, from combustion of coal, in lbs/ton of coal combusted, from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.1, Table 1.1-14 and Table 1.1-15 (9/98) for each individual HAP, except HCl; and

C_t = monthly total coal combusted, in tons, shall be the sum of total coal combusted in each coal-fired boiler, as recorded in section B.5.a)(3);

- (8) the monthly facility-wide emissions of each individual HAP, in tons, which shall be the sum of each individual HAP emissions from combustion of natural gas and coal, combined, as calculated and recorded in sections B.5.a)(6) and B.5.a)(7);
- (9) the monthly facility-wide emissions of total combined HAPs, in tons, which shall be the sum for each individual HAP emissions as determined in section B.5.a)(8);
- (10) the rolling, 12-month summation of facility-wide emissions of each individual HAP, in tons;
- (11) the rolling, 12-month summation of facility-wide emissions of total combined HAPs, in tons; and
- (12) the monthly total heat input for each coal-fired boiler, B002, B003, and B004, in MMBtu, and shall be calculated as follows:

$$H_j = (C)(HC)(2,000 \text{ lbs/ton})(\text{MMBtu}/1 \times 10^6 \text{ Btu})$$

where:

H_j = monthly total heat input for each coal-fired boiler, in MMBtu;

C = monthly total coal combusted, in tons, as recorded in section B.5.a)(3); and

HC = the monthly average coal heat content, in Btu/lb of coal combusted, and shall be determined based upon the average monthly coal analysis data, as monitored and recorded in section C.2.d)(1) and C.2.d)(2).

¹ A listing of the Hazardous Air Pollutants (HAPs) can be found in Section 112(b) of the Clean Air Act. Material Safety Data Sheets or Environmental Data Sheets typically include a listing of the solvents contained in the coatings or cleanup materials.

6. Reporting Requirements

- a) The permittee shall submit quarterly deviation (excursion) reports that identify:
- (1) all deviations (excursions) of the following emission limitations, operational restrictions and/or control device operating parameter limitations that restrict the potential to emit (PTE) of any regulated air pollutant and have been detected by the monitoring, record keeping and/or testing requirements in this permit:
 - a. all exceedances of the rolling, 12-month summation of facility-wide emissions of each individual HAP not to exceed 9.90 tons, and the actual facility-wide emissions of each individual HAP during each such period;
 - b. all exceedances of the rolling, 12-month summation of facility-wide emissions of total combined HAPs not to exceed 24.90 tons, and the actual facility-wide emissions of total combined HAPs during each such period;
 - c. all exceedances of burning only natural gas in emissions unit B001 and the actual amount of other fuel combusted in emissions unit B001;
 - d. all exceedances of combusting no more than 4,700 tons coal per year, based upon a rolling, 12-month summation, in emissions units B002, B003, and B004 combined, and the actual amount of coal combusted in emissions units B002, B003, and B004, combined;
 - e. all exceedances of combusting no more than 3,750 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B002, and the actual amount of coal combusted in emissions unit B002;
 - f. all exceedances of combusting no more than 3,750 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B003, and the actual amount of coal combusted in emissions unit B003; and
 - g. all exceedances of combusting no more than 3,550 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B004, and the actual amount of coal combusted in emissions unit B004.
 - (2) the probable cause of each deviation (excursion);
 - (3) any corrective actions that were taken to remedy the deviations (excursions) or prevent future deviations (excursions); and
 - (4) the magnitude and duration of each deviation (excursion).

If no deviations (excursions) occurred during a calendar quarter, the permittee shall submit a report that states that no deviations (excursions) occurred during the quarter.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

- b) The permittee shall submit annual evaluation reports of the average annual capacity factor for each emissions unit B002, B003, and B004, based upon records kept in section B.5.a) above and calculations provided in section B.7.a)(4). The reports shall be submitted by January 31 of each year and shall cover the data obtained during the previous calendar year.

7. Testing Requirements

- a) Compliance with the Emissions Limitations and/or Control Requirements specified in sections B.3 and B.4 of these terms and conditions shall be determined in accordance with the following methods:

- (1) Emission Limitation:

- Facility-wide emissions of each individual HAP shall not exceed 9.90 tons per year, based upon a rolling, 12-month summation.

- Applicable Compliance Method:

- Compliance shall be demonstrated based upon the record keeping requirements specified in B.5.a)(10) above.

- If required, the permittee shall demonstrate compliance with the HCl (HAP) emission limitation through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 26/26A.

- (2) Emission Limitation:

- Facility-wide emissions of total combined HAPs shall not exceed 24.90 tons per year, based upon a rolling, 12-month summation.

- Applicable Compliance Method:

- Compliance shall be demonstrated based upon the record keeping requirements specified in B.5.a)(11) above.

- (3) Operational Restriction:

- The permittee shall burn only natural gas in emissions unit B001.

- Applicable Compliance Method:

- Compliance shall be demonstrated based upon the record keeping requirements specified in B.5.a)(1) above.

(4) Operational Restriction:

The permittee shall combust no more than 4,700 tons coal per year, based upon a rolling, 12-month summation, in emissions units B002, B003, and B004, combined.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in B.5.a)(5) above.

(5) Operational Restriction:

The permittee shall burn no more than:

- a. 3,750 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B002;
- b. 3,750 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B003; and
- c. 3,550 tons coal per year, based upon a rolling, 12-month summation, in emissions unit B004.

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in B.5.a)(3) above.

(6) Operational Restriction:

The permittee shall limit each coal-fired boiler (B002, B003, and B004) in the facility to an average annual capacity factor of no more than 10 percent (10%).

Applicable Compliance Method:

Compliance shall be demonstrated based upon the record keeping requirements specified in B.5.a)(2) above and the following:

$$CF = \sum_{j=1}^m (H_j) / [(H)(8,760 \text{ hrs/yr})]$$

where:

CF = average annual capacity factor, in %;

H_j = monthly total heat input for each coal-fired boiler, in MMBtu, as recorded in section B.5.a)(12) above;

m = the total number of different months of the year;

i = subscript denoting an individual month; and



Final Permit-to-Install and Operate

Youngstown Thermal

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Effective Date: 1/29/2016

H = maximum heat input for the emissions unit, H = 113 MMBtu/hr for emissions unit B002, H = 113 MMBtu/hr for emissions unit B003, and 110 MMBtu/hr for emissions unit B004, from PTI/PTIO Application A0055060, submitted on 12/23/2015.

- b) The Ohio EPA Northeast District Office has approved the Compliance Assurance Monitoring (CAM) plan submitted by the permittee, pursuant to 40 CFR Part 64, for emissions units B002, B003, and B004. The permittee shall comply with the provisions of the plan (as specified in Part C – Terms and Conditions for Emissions Units) when combusting coal in the aforementioned emissions units.



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Youngstown Thermal
Permit Number: P0120126
Facility ID: 0250110024
Effective Date: 1/29/2016

C. Emissions Unit Terms and Conditions

1. B001, Boiler #1

Operations, Property and/or Equipment Description:

Vogt, 124 mmBtu/hr, natural gas-fired boiler for steam generation

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	The visible particulate emissions from the exhaust of this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-10(B)(1)	See b)(2)a.
c.	OAC rule 3745-18-56(E)	See b)(2)b.
d.	OAC rule 3745-31-05(D)	See B.3.a)(1).
e.	40 CFR Part 63, Subpart JJJJJJ	See b)(2)c.

(2) Additional Terms and Conditions

a. Particulate emissions from this emissions unit shall not exceed 0.020 pound per million Btu (MMBtu) of actual heat input.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-17-10(B)(1)]

b. Sulfur dioxide (SO₂) emissions from this emissions unit shall not exceed a maximum of 4.7 pounds per MMBtu actual heat input.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-18-56(E)]

c. This is a gas-fired boiler as defined by Subpart JJJJJJ of 40 Code of Federal Regulation, Part 63. In accordance with 40 CFR §63.11195(e), this emissions unit is not subject to the subpart or to any requirements in the subpart.

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR Part 63, Subpart JJJJJJ]

c) Operational Restrictions

- (1) None.

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall perform daily checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack serving this emissions unit. The presence or absence of any visible emissions shall be noted in an operations log. If visible emissions are observed, the permittee shall also note the following in the operations log:

- a. the color of the emissions;
- b. whether the emissions are representative of normal operations;
- c. if the emissions are not representative of normal operations, the cause of the abnormal emissions;
- d. the total duration of any visible emissions incident; and
- e. any corrective actions taken to minimize or eliminate the visible emissions.

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

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall submit semiannual written reports that identify:

- a. all days during which any visible particulate emissions were observed from the stack serving this emissions unit; and
- b. any corrective actions taken to minimize or eliminate the visible particulate emissions.

These reports shall be submitted to the Director (the Ohio EPA Northeast District Office) by January 31 and July 31 of each year and shall cover the previous 6-month period.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:

The visible particulate emissions from the exhaust of this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9.

b. Emission Limitation:

The particulate emissions from this emissions unit shall not exceed 0.020 pound per MMBtu of actual heat input.

Applicable Compliance Method:

Compliance with the particulate emission limitation shall be demonstrated based upon the following equation:

$$E_{PE} = (EF_{PE})/(HC)$$

where:

E_{PE} = particulate emission rate, in pounds per MMBtu actual heat input;

EF_{PE} = particulate emission factor, 7.6 lbs/10⁶ ft³ of natural gas burned, obtained from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98); and

HC = heat content for natural gas, 1,030 Btu/ft³, from PTI/PTIO Application A0055060, submitted on 12/23/2015.

c. Emission Limitation:

SO₂ emissions from this emissions unit shall not exceed a maximum of 4.7 pounds per MMBtu actual heat input.

Applicable Compliance Method:

Compliance with the SO₂ emission limitation shall be demonstrated based upon the following equation:



$$E_{SO_2} = (EF_{SO_2})/(HC)$$

where:

E_{SO_2} = SO₂ emission rate, in pounds per MMBtu actual heat input;

EF_{SO_2} = SO₂ emission factor, 0.6 lb/10⁶ ft³ of natural gas burned, obtained from AP-42 "Compilation of Air Pollutant Emission Factors", 5th Edition, Section 1.4, Table 1.4-2 (7/98); and

HC = heat content for natural gas, 1,030 Btu/ft³, from PTI/PTIO Application A0055060, submitted on 12/23/2015.

[Authority for term: OAC rule 3745-77-07(C)(1)]

g) Miscellaneous Requirements

(1) None.

2. Emissions Unit Group -Coal-Fired Boilers: B002,B003,B004,

EU ID	Operations, Property and/or Equipment Description
B002	Vogt, 113 mmBtu/hr, spreader stoker coal-fired boiler for steam generation with multiclone and sidestreambaghouse
B003	Vogt, 113 mmBtu/hr, spreader stoker coal-fired boiler for steam generation with multiclone and sidestreambaghouse
B004	Vogt, 110 mmBtu/hr, spreader stoker coal-fired boiler for steam generation with multiclone and sidestreambaghouse

a) The following emissions unit terms and conditions are federally enforceable with the exception of those listed below which are enforceable under state law only.

(1) None.

b) Applicable Emissions Limitations and/or Control Requirements

(1) The specific operation(s), property, and/or equipment that constitute each emissions unit along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures are identified below. Emissions from each unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
a.	OAC rule 3745-17-07(A)(1)	The visible particulate emissions from the exhaust of this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
b.	OAC rule 3745-17-10(C)(1)	Particulate emissions (PE) shall not exceed 0.14 lb/MMBtu actual heat input.
c.	OAC rule 3745-18-56(E)	See b)(2)a.
d.	OAC rule 3745-31-05(D)	See B.3.a)(1).
	40 CFR Part 64 [40 CFR 64.1 through 64.10] Compliance Assurance Monitoring (CAM) [In accordance with 40 CFR 64.2(a), this emissions unit uses a control device to achieve compliance with the applicable PE limitation when burning coal and pre-control particulate emissions are greater than 100 tons per year when burning coal. Therefore, this emissions unit is subject to the requirements of this	See b)(2)b, b)(2)c, c)(1), d)(3) through d)(8) and e)(2) through e)(4).

	Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
	rule when combusting coal.]	

(2) Additional Terms and Conditions

- a. Sulfur dioxide (SO₂) emissions from each emissions unit shall not exceed a maximum of 4.7 pounds per MMBtu actual heat input.

[Authority for term: OAC rule 3745-77-07(A)(1), OAC rule 3745-18-56(E)]

- b. The permittee shall maintain a written quality assurance/quality control plan for the continuous opacity monitoring system, designed to ensure continuous valid and representative readings of opacity and compliance with 40 CFR Part 60, Appendix B, Performance Specification 1. The plan shall include, at a minimum, procedures for 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 accurate operation of the continuous opacity monitoring system 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.

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR 60.13, 40 CFR Part 60, Appendix B, and 40 CFR Part 64]

- c. The continuous opacity monitoring system consists of all the equipment used to acquire data and record opacity.

[Authority for term: OAC rule 3745-77-07(A)(1), 40 CFR 60.2, 40 CFR Part 60, Appendix B, and 40 CFR Part 64]

c) Operational Restrictions

- (1) The permittee shall ensure that the boiler gases pass through the multiclone control system. This system, including the sidestream baghouse, shall remain operational at all times that the emissions unit is in operation.

[Authority for term: OAC rule 3745-77-07(A)(1) and 40 CFR Part 64]

- (2) At no time shall the steam flow rate from emissions unit B003 exceed 72,000 pounds per hour (as an average over any one-hour period). The permittee shall not operate at a higher load (> 72,000 pounds per hour) without first demonstrating compliance with the PE limit (0.14 lb/mmBtu) by means of compliance testing.

[Authority for term: OAC rule 3745-77-07(A)(1)]

- (3) At no time shall the steam flow rate from emissions unit B004 exceed 56,000 pounds per hour (as an average over any one-hour period). The permittee shall not operate at a

higher load (> 56,000 pounds per hour) without first demonstrating compliance with the PE limit (0.14 lb/mmBtu) by means of compliance testing.

[Authority for term: OAC rule 3745-77-07(A)(1)]

d) Monitoring and/or Recordkeeping Requirements

- (1) The permittee shall collect representative grab samples of the coal burned in this emissions unit on a frequency of two days per week. Each sample shall be collected from the coal feeder. The coal sampling shall be performed in accordance with ASTM method D2234, Standard Practice for 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 to be used to determine the ash content, sulfur content, and heat content shall be the most recent version of: ASTM method D3174, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal; ASTM method D3177, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke or ASTM method D4239, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods; and ASTM method D5865, Standard Test Method for Gross Calorific Value of Coal and Coke, respectively. Alternative, equivalent methods may be used upon written approval by the Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(D)(3)(b)]

- (2) The permittee shall maintain monthly records of the total quantity of coal burned, and the results of the analyses for ash content, sulfur content, heat content and the SO₂ emission rate (in lbs SO₂/mmBtu, calculated using the appropriate formula specified in OAC rule 3745-18-04(F)).

[Authority for term: OAC rule 3745-77-07(C)(1)]

- (3) The permittee shall operate and maintain the continuous opacity monitoring system to continuously monitor and record the opacity of the particulate emissions from this emissions unit. The continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.
- (4) The permittee shall maintain records of data obtained by the continuous opacity monitoring system including, but not limited to:
 - a. percent opacity on a 6-minute block average basis;
 - b. results of daily zero/span calibration checks and the magnitude of manual calibration adjustments;
 - c. hours of operation of the emissions unit, continuous opacity monitoring system, and control equipment;

- d. the date, time, and hours of operation of the emissions unit without the control equipment and/or the continuous opacity monitoring system;
- e. the date, time, and hours of operation of the emissions unit during any malfunction of the control equipment and/or the continuous opacity monitoring system; and
- f. the reason (if known) and the corrective actions taken (if any) for each such event in (d) and (e).

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR Part 60, Appendix B and 40 CFR Part 64]

- (5) The permittee shall maintain on-site documentation from the U.S. EPA or the Ohio EPA's Central Office verifying that the continuous opacity monitoring system has been certified to meet the requirements of 40 CFR Part 60, Appendix B, Performance Specification 1. The letter/document of certification shall be made available to the director (the Ohio EPA Northeast District Office) upon request.

Each continuous monitoring system consists of all the equipment used to acquire and record data in units of all applicable standard(s), and includes the sample extraction and transport hardware, sample conditioning hardware, analyzers, and data processing hardware and software.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.13, 40 CFR Part 60, Appendix B and 40 CFR Part 64]

- (6) The permittee shall properly install, operate, and maintain equipment to continuously monitor and record the pressure drop, in inches of water, across the sidestreambaghouse and multiclone while the emissions unit is in operation, including periods of startup and shutdown. 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, in inches of water, across the sidestreambaghouse and across the multiclone on a daily basis.

Whenever the monitored value for the pressure drop deviates from the range specified below, the permittee shall promptly investigate the cause of the deviation. The permittee shall maintain records of the following information for each investigation: the date and time the deviation began and the magnitude of the deviation at that time, the date(s) the investigation was conducted, the names of the personnel who conducted the investigation, and the findings and recommendations.

In response to each required investigation to determine the cause of a deviation, the permittee shall take prompt corrective action to bring the operation of the control equipment within the acceptable range specified below, unless the permittee determines that corrective action is not necessary and documents the reasons for that determination and the date and time the deviation ended. The permittee shall maintain records of the following information for each corrective action taken: a description of the corrective action, the date it was completed, the date and time the deviation ended, the total period

of time (in minutes) during which there was a deviation, the pressure drop readings immediately after the corrective action was implemented, and the names of the personnel who performed the work. Investigation and records required by this paragraph do not eliminate the need to comply with the requirements of OAC rule 3745-15-06 if it is determined that a malfunction has occurred.

- a. The acceptable range for the pressure drop across the sidestream baghouse is 2.0 to 7.0 inches of water; and
- b. The acceptable range for the pressure drop across the multiclone is 2.0 to 8.0 inches of water.

These ranges are effective for the duration of this permit, unless revisions are requested by the permittee and approved in writing by the Ohio EPA Northeast District Office. The permittee may request revisions to the ranges based upon information obtained during future particulate emission tests that demonstrate compliance with the allowable particulate emission rate for this emissions unit. In addition, approved revisions to the ranges will not constitute a relaxation of the monitoring requirements of this permit and may be incorporated into this permit by means of a minor permit modification.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

- (7) The CAM plan for these emissions units has been developed for visible particulate and particulate emissions. The CAM performance indicators for visible particulate and particulate emissions are the opacity of the visible particulate emissions from the control device exhaust stack as measured and recorded by the certified continuous opacity monitoring (COM) system, and the pressure drop ranges for the multiclone and sidestream baghouse.

The CAM performance indicator range as measured and recorded by the COM is each hourly average greater than 15% opacity. When the opacity value is greater than 15% as an hourly average, corrective action (including, but not limited to, an evaluation of the emissions unit and control devices) will be required.

The CAM performance indicator ranges as measured by the sidestream baghouse and multiclone pressure drops are specified in d)(6). When either pressure drop is outside of the indicator ranges specified in d)(6), corrective action (including, but not limited to, an evaluation of the emissions unit and control devices) will be required.

Upon detecting an excursion of any of the visible particulate emission indicator ranges listed above, the owner or operator shall restore operation of the emissions unit (including the control devices) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion. Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as thorough response by the computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range.

If a determination is made by the Administrator or Ohio EPA that the permittee has not used acceptable procedures in response to an excursion or exceedance based on the results of a determination made under 40 CFR Part 64.7(d)(2), the permittee may be required to develop a Quality Improvement Plan (QIP) consistent with the requirements of 40 CFR Part 64.8.

[Authority for term: OAC rule 3745-77-07(C)(1) and 40 CFR Part 64]

- (8) The permittee shall continuously monitor and record the steam flow rate from emissions units B003 and emissions unit B004 while the emissions unit is in operation. 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 Ohio EPA Northeast District Office) upon verbal or written request.

[Authority for term: OAC rule 3745-77-07(C)(1)]

e) Reporting Requirements

- (1) The permittee shall submit quarterly reports on the quality and quantity of the coal burned in these emissions units. These reports shall include the following information for the emissions unit for each calendar month during the calendar quarter:
- the total quantity of coal burned (tons) for each coal-fired boiler (B002, B003, and B004);
 - the average ash content (percent) of the coal burned;
 - the average sulfur content (percent) of the coal burned;
 - the average heat content (Btu/pound) of the coal burned; and
 - the calculated, average SO₂ emission rate (pounds SO₂/mmBtu actual heat input) from the coal burned.

Compliance with the SO₂ emission limit shall be determined each month by calculating the average monthly SO₂ emission rate using the results of the analyses of the monthly composite sample for sulfur content and heat content.

The quarterly reports shall be submitted each year by January 31 (covering October to December), April 30 (covering January to March), July 31 (covering April to June), and October 31 (covering July to September), unless an alternative schedule has been established and approved by the Director (the Ohio EPA Northeast District Office).

[Authority for term: OAC rule 3745-77-07(C)(1) and OAC rule 3745-18-04(D)]

- (2) The permittee shall comply with the following quarterly reporting requirements for the emissions units and their continuous opacity monitoring systems:
- Pursuant to the monitoring, record keeping, and reporting requirements for continuous monitoring systems contained in 40 CFR Parts 60.7 and 60.13(h) and the requirements established in this permit, the permittee shall submit reports

within 30 days following the end of each calendar quarter to the Ohio EPA Northeast District Office, documenting all instances of opacity values in excess of any limitation specified in this permit, 40 CFR Part 60, OAC rule 3745-17-07, and any other applicable rules or regulations. The report shall document the date, commencement and completion times, duration, and magnitude (percent opacity) of each 6-minute block average exceeding the applicable opacity limitation(s), as well as, the reason (if known) and the corrective actions taken (if any) for each exceedance. If there are no exceedances during the calendar quarter, the permittee shall submit a statement to that effect.

- b. These quarterly reports shall be submitted by January 31, April 30, July 31, and October 31 of each year and shall include the following:
- i. the facility name and address;
 - ii. the manufacturer and model number of the continuous opacity monitor;
 - iii. a description of any change in the equipment that comprises the continuous opacity monitoring system (COMS), including any change to the hardware, changes to the software that may affect COMS readings, and/or changes in the location of the COMS sample probe;
 - iv. the excess emissions report (EER)*, i.e., a summary of any exceedances during the calendar quarter, as specified above;
 - v. the total operating time (hours) of the emissions unit;
 - vi. the total operating time of the continuous opacity monitoring system while the emissions unit was in operation;
 - vii. the date, time, and duration of any/each malfunction** of the continuous opacity monitoring system, emissions unit, and/or control equipment;
 - viii. the date, time, and duration of any downtime** of the continuous opacity monitoring system and/or control equipment while the emissions unit was in operation; and
 - ix. the reason (if known) and the corrective actions taken (if any) for each event in (b)(vii) and (viii).

Each report shall address the operations conducted and data obtained during the previous calendar quarter.

*where no exceedance of the opacity limit has occurred or the continuous monitoring system(s) has/have not been inoperative, repaired, or adjusted during the calendar quarter, such information shall be documented in the quarterly EER report

**each downtime and malfunction event shall be reported regardless if there is an exceedance of the opacity limit.

[Authority for term: OAC rule 3745-77-07(C)(1), 40 CFR 60.7 and 40 CFR Part 64]

- (3) The permittee shall submit quarterly reports that identify the following information concerning the operation of the control equipment during the operation of these emissions units:
- a. each period of time (start time and date, and end time and date) when the pressure drop across the sidestream baghouse and/or the multiclone was outside of the acceptable range;
 - b. any period of time (start time and date, and end time and date) when the emissions unit(s) was/were in operation and the process emissions were not vented to the sidestream baghouse and/or the multiclone;
 - c. each incident of deviation described in "a" (above) where a prompt investigation was not conducted;
 - d. each incident of deviation described in "a" where prompt corrective action, that would bring the pressure drop into compliance with the acceptable range, was determined to be necessary and was not taken; and
 - e. each incident of deviation described in "a" where proper records were not maintained for the investigation and/or the corrective action(s), as identified in the monitoring and record keeping requirements of this permit.

These quarterly reports shall be submitted (i.e., postmarked) by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

[Authority for term: OAC rule 3745-77-07(C)(1), OAC rule 3745-15-03 and 40 CFR Part 64]

- (4) If for any reason the steam flow rate from emissions unit B003 exceeds 72,000 pounds per hour and/or from emissions unit B004 exceeds 56,000 pounds per hour, the following information shall be reported to the Ohio EPA Northeast District Office, within 5 business days after the exceedance:
- a. the date of the exceedance;
 - b. the time interval over which the exceedance occurred;
 - c. the value of the exceedance;
 - d. the cause(s) of the exceedance;
 - e. the corrective action which has been or will be taken to prevent similar exceedances in the future; and
 - f. a copy of the steam chart which shows the exceedance.

This report will not be required if this emissions unit demonstrates compliance with the PE limit at a steam flow rate that corresponds to the maximum capacity of the emissions unit by means of compliance testing.

[Authority for term: OAC rule 3745-77-07(C)(1)]

f) Testing Requirements

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

a. Emission Limitation:

The visible particulate emissions from the exhaust of this emissions unit shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

If required, compliance with the visible particulate emission limitation shall be demonstrated through visible particulate emission observations performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Method 9 and OAC rule 3745-17-03(B)(1).

Ongoing compliance with the opacity limitation contained in this permit, 40 CFR Part 60, and any other applicable standard(s) shall be demonstrated through the data collected as required in the Monitoring and/or Recordkeeping Section of this permit; and through demonstration of compliance with the quality assurance/quality control plan, which shall meet the testing and recertification requirements of 40 CFR Part 60.

[Authority for term: OAC rule 3745-17-03(B)(1), 40 CFR 60.13, 40 CFR Part 60, Appendix B and OAC rule 3745-77-07(C)(1)]

b. Emission Limitations:

Particulate emissions (PE) shall not exceed 0.14 lb/MMBtu actual heat input.

Applicable Compliance Method:

Compliance with the emission limitation shall be demonstrated through the particulate emission testing required in f)(2).

[Authority for term: OAC rule 3745-77-07(C)(1)]

c. Emission Limitation:

SO₂ emissions from this emissions unit shall not exceed a maximum of 4.7 pounds per MMBtu actual heat input.

Applicable Compliance Method:

Compliance with this emission limitation may be demonstrated through the records required pursuant to section d)(2) and the following calculation:

$$ER_{SO_2} = (1.9S)(1 \times 10^6) / (H)$$

where:

ER_{SO_2} = the SO_2 emission rate, in pounds per MMBtu;

S = the decimal fraction of sulfur in the coal, and shall be determined based upon the record keeping requirements specified in sections d)(1) and d)(2); and

H = the heat content of the coal, in Btu/lb of coal combusted, and shall be determined based upon the record keeping requirements specified in sections d)(1) and d)(2).

If required, the permittee shall demonstrate compliance with this emission limitation through emission tests performed in accordance with the methods and procedures specified in 40 CFR Part 60, Appendix A, Methods 1 through 4 and 6.

[Authority for term: OAC rule 3745-15-04(A), OAC rule 3745-77-07(C)(1), OAC rule 3745-18-04 (and OAC rule 3745-18-04(F))]

- (2) The permittee shall conduct, or have conducted, particulate emission testing for the following emissions units to demonstrate compliance with the allowable particulate emission rates in section b)(1)b above in accordance with the following requirements:
- a. The testing of B002 shall be conducted on a 2 to 3 year interval with the next required test to be performed no later than March 31, 2017.
 - b. The testing of B003 shall be conducted on a 2 to 3 year interval with the next required test to be performed no later than March 31, 2016.
 - c. The testing of B004 shall be conducted on a 2 to 3 year interval with the next required test to be performed no later than March 31, 2018.

Compliance with the allowable mass emission rate for particulate emissions shall be determined in accordance with 40 CFR Part 60, Appendix A, Methods 1 through 5 and the procedures in OAC rule 3745-17-03(B)(9).

The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity.

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

Personnel from the Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office 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 Ohio EPA Northeast District Office.

[Authority for term: OAC rule 3745-17-03(B)(9) and OAC rule 3745-77-07(C)(1)]

- g) Miscellaneous Requirements
 - (1) None.