



State of Ohio Environmental Protection Agency

Street Address:

Lazarus Gov. Center
122 S. Front Street
Columbus, OH 43215

TELE: (614) 644-3020 FAX: (614) 644-2329

Mailing Address:

Lazarus Gov. Center
P.O. Box 1049
Columbus, OH 43216-1049

08/25/04

CERTIFIED MAIL

RE: Final Title V Chapter 3745-77 permit

06-41-09-0234
Mingo Junction Energy Center, LLC
Jay P O'Connell
PO Box 160
Mingo Junction, OH 43938

Dear Jay P O'Connell:

Enclosed is the Title V permit that allows you to operate the facility in the manner indicated in the permit. Because this permit may contain several conditions and restrictions, we urge you to read it carefully.

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 Pollution Prevention at (614) 644-3469.

You are hereby notified that this action of the Director is final 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. It must be filed with the Environmental Review Appeals Commission within thirty (30) days after notice of the Director's action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. It is also requested by the Director that a copy of the appeal be served upon the Environmental Enforcement Section of the Office of the Attorney General. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

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

If you have any questions, please contact Southeast District Office.

Sincerely,

Michael W. Ahern
Permit Issuance and Data Management Section
Division of Air Pollution Control

cc: Southeast District Office
File, DAPC PMU



State of Ohio Environmental Protection Agency

FINAL TITLE V PERMIT

Issue Date: **08/25/04**

Effective Date: **09/15/04**

Expiration Date: **09/15/09**

This document constitutes issuance of a Title V permit for Facility ID: 06-41-09-0234 to:
Mingo Junction Energy Center, LLC
Mingo Junction, OH 43938

Emissions Unit ID (Company ID)/Emissions Unit Activity Description

B001 (Boiler 1) The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.	fuel with natural gas as a supplemental fuel for generating process steam and electricity.	B004 (Boiler 4) The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.
B002 (Boiler 2) The boiler will burn blast furnace gas as a primary	B003 (Boiler 3) The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.	

You will be contacted approximately eighteen (18) months prior to the expiration date regarding the renewal of this permit. If you are not contacted, please contact the appropriate Ohio EPA District Office or local air agency listed below. This permit and the authorization to operate the air contaminant sources (emissions units) at this facility shall expire at midnight on the expiration date shown above. If a renewal permit is not issued prior to the expiration date, the permittee may continue to operate pursuant to OAC rule 3745-77-08(E) and in accordance with the terms of this permit beyond the expiration date, provided that a complete renewal application is submitted no earlier than eighteen (18) months and no later than one-hundred eighty (180) days prior to the expiration date.

Described below is the current Ohio EPA District Office or local air agency that is responsible for processing and administering your Title V permit:

Southeast District Office
2195 Front Street
Logan, OH 43138
(740) 385-8501

OHIO ENVIRONMENTAL PROTECTION AGENCY

Christopher Jones
Director

PART I - GENERAL TERMS AND CONDITIONS

A. *State and Federally Enforceable Section*

1. **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, i.e., in Section A.III of Part III of this Title V permit, 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(i))

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 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.

(Authority for term: OAC rule 3745-77-07(A)(3)(b)(ii))

c. The permittee shall submit required reports in the following manner:

i. **All reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations caused by malfunctions shall be submitted in the following manner:**

Any malfunction, as defined in OAC rule 3745-15-06(B)(1), shall be promptly reported to the Ohio EPA in accordance with OAC rule 3745-15-06. In addition, to fulfill the OAC rule 3745-77-07(A)(3)(c) deviation reporting requirements for malfunctions, written reports that identify each malfunction that occurred during each calendar quarter (including each malfunction reported only verbally in accordance with OAC rule 3745-15-06) shall be submitted by January 31, April 30, July 31, and October 31 of each year in accordance with General Term and Condition A.1.c.ii below; and each report shall cover the previous calendar quarter.

In accordance with OAC rule 3745-15-06, a malfunction constitutes a violation of an emission limitation (or control requirement) and, therefore, is a deviation of the federally enforceable permit requirements. Even though verbal notifications and written reports are required for malfunctions pursuant to OAC rule 3745-15-06, the written reports required pursuant to this term must be submitted quarterly to satisfy the prompt reporting provision of OAC rule 3745-77-07(A)(3)(c).

In identifying each deviation caused by a malfunction, the permittee shall specify the emission limitation(s) (or control requirement(s)) for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. For a specific malfunction, if this information has been provided in a written report that was submitted in accordance with OAC rule 3745-15-06, the permittee may simply reference that written report to identify the deviation. Nevertheless, all malfunctions, including those reported only verbally in accordance with OAC rule 3745-15-06, must be reported in writing on a quarterly basis.

Any scheduled maintenance, as referenced in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described above for malfunctions.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- ii. **Except as may otherwise be provided in the terms and conditions for a specific emissions unit, i.e., in Section A.IV of Part III of this Title V permit or, in some cases, in Part II of this Title V permit, all reporting required in accordance with OAC rule 3745-77-07(A)(3)(c) for deviations of the emission limitations, operational restrictions, and control device operating parameter limitations shall be submitted in the following manner:**

Written reports of (a) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures taken, shall be promptly made to the appropriate Ohio EPA District Office or local air agency. Except as provided below, the written reports shall be submitted by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

In identifying each deviation, the permittee shall specify the emission limitation(s), operational restriction(s), and/or control device operating parameter limitation(s) for which the deviation occurred, describe each deviation, and provide the estimated magnitude and duration of each deviation.

These written reports shall satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations. OAC rule 3745-77-07(A)(3)(c) is not fully satisfied until the permittee addresses all other deviations of the federally enforceable requirements specified in the permit.

If an emissions unit has a deviation reporting requirement for a specific emission limitation, operational restriction, or control device operating parameter limitation that is not on a quarterly basis (e.g., within 30 days following the end of the calendar month, or within 30 or 45 days after the exceedance occurs), that deviation reporting requirement overrides the reporting requirements specified in this General Term and Condition for that specific emission limitation, operational restriction, or control device parameter limitation. Following the provisions of that non-quarterly deviation reporting requirement will also satisfy the requirements (in part) of OAC rule 3745-77-07(A)(3)(c) pertaining to the submission of monitoring reports every six months and to the prompt reporting of all deviations, and additional quarterly deviation reports for that specific emission limitation, operational restriction, or control device parameter limitation are not required pursuant to this General Term and Condition.

See B.6 below if no deviations occurred during the quarter.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

- iii. **All reporting required in accordance with the OAC rule 3745-77-07(A)(3)(c) for other deviations of the federally enforceable permit requirements which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted in the following manner:**

Written reports that identify all other deviations of the federally enforceable requirements contained in this permit, including the monitoring, record keeping, and reporting requirements, which are not reported in accordance with General Term and Condition A.1.c.ii above shall be submitted to the appropriate Ohio EPA District Office or local air agency by January 31 and July 31 of each year; and each report shall cover the previous six calendar months.

In identifying each deviation, the permittee shall specify the federally enforceable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation.

These semi-annual written reports shall satisfy the reporting requirements of OAC rule 3745-77-07(A)(3)(c) for any deviations from the federally enforceable requirements contained in this permit that are not reported in accordance with General Term and Condition A.1.c.ii above.

If no such deviations occurred during a six-month period, the permittee shall submit a semi-annual report which states that no such deviations occurred during that period.

(Authority for term: OAC rules 3745-77-07(A)(3)(c)(i) and (ii))

- 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 (including any written malfunction reports required by OAC rule 3745-15-06 that are referenced in the deviation reports) are true, accurate, and complete."

(Authority for term: OAC rule 3745-77-07(A)(3)(c)(iv))

- v. Reports of any required monitoring and/or record keeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

2. **Scheduled Maintenance**

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. Except as provided in OAC rule 3745-15-06(A)(3), any scheduled maintenance necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s). Any scheduled maintenance, as defined in OAC rule 3745-15-06(A)(1), that results in a deviation from a federally enforceable emission limitation (or control requirement) shall be reported in the same manner as described for malfunctions in General Term and Condition A.1.c.i above.

(Authority for term: OAC rule 3745-77-07(A)(3)(c))

3. **Risk Management Plans**

If applicable, the permittee shall 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"); and, pursuant to 40 C.F.R. 68.215(a), the permittee shall submit either of the following:

- a. a compliance plan for meeting the requirements of 40 C.F.R. Part 68 by the date specified in 40 C.F.R. 68.10(a) and OAC 3745-104-05(A); or
- b. as part of the compliance certification submitted under 40 C.F.R. 70.6(c)(5), a certification statement that the source is in compliance with all requirements of 40 C.F.R. Part 68 and OAC Chapter 3745-104, including the registration and submission of the risk management plan.

(Authority for term: OAC rule 3745-77-07(A)(4))

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.

(Authority for term: OAC rule 3745-77-07(A)(5))

5. **Severability Clause**

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.

(Authority for term: OAC rule 3745-77-07(A)(6))

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, in accordance with A.10 below. 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.

(Authority for term: OAC rule 3745-77-07(A)(7))

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.

(Authority for term: OAC rule 3745-77-07(A)(8))

8. Marketable Permit Programs

No revision of this permit is required under any approved economic incentive, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in this permit.

(Authority for term: OAC rule 3745-77-07(A)(9))

9. Reasonably Anticipated Operating Scenarios

The permittee is hereby authorized to make changes among operating scenarios authorized in this permit without notice to the Ohio EPA, but, contemporaneous with making a change from one operating scenario to another, the permittee must record in a log at the permitted facility the scenario under which the permittee is operating. The permit shield provided in these general terms and conditions shall apply to all operating scenarios authorized in this permit.

(Authority for term: OAC rule 3745-77-07(A)(10))

10. Reopening for Cause

This Title V permit will be reopened prior to its expiration date under the following conditions:

- a. Additional applicable requirements under the Act become applicable to one or more emissions units covered by this permit, and this permit has a remaining term of three or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to paragraph (E)(1) of OAC rule 3745-77-08.
- b. This permit is issued to an affected source under the acid rain program and additional requirements (including excess emissions requirements) become applicable. Upon approval by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit, and shall not require a reopening of this permit.
- c. The Director of the Ohio EPA or the Administrator of the U.S. EPA determines that the federally applicable requirements in this permit are based on a material mistake, or that inaccurate statements were made in establishing the emissions standards or other terms and conditions of this permit related to such federally applicable requirements.
- d. The Administrator of the U.S. EPA or the Director of the Ohio EPA determines that this permit must be revised or revoked to assure compliance with the applicable requirements.
(Authority for term: OAC rules 3745-77-07(A)(12) and 3745-77-08(D))

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

(Authority for term: OAC rule 3745-77-07(B))

12. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this Title V 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 paragraph (E) of OAC rule 3745-77-03.
 - 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.
- d. Compliance certifications concerning the terms and conditions contained in this permit that are federally enforceable emission limitations, standards, or work practices, shall be submitted to the Director (the appropriate Ohio EPA District Office or local air agency) and the Administrator of the U.S. EPA in the following manner and with the following content:
- i. Compliance certifications shall be submitted annually on a calendar year basis. The annual certification shall be submitted on or before April 30th of each year during the permit term.
 - ii. Compliance certifications shall include the following:
 - (a) An identification of each term or condition of this permit that is the basis of the certification.
 - (b) The permittee's current compliance status.
 - (c) Whether compliance was continuous or intermittent.
 - (d) The method(s) used for determining the compliance status of the source currently and over the required reporting period.
 - (e) Such other facts as the Director of the Ohio EPA may require in the permit to determine the compliance status of the source.
 - iii. Compliance certifications shall contain such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

(Authority for term: OAC rules 3745-77-07(C)(1),(2),(4) and (5) and ORC section 3704.03(L))

13. Permit Shield

- a. Compliance with the terms and conditions of this permit (including terms and conditions established for alternate operating scenarios, emissions trading, and emissions averaging, but excluding terms and conditions for which the permit shield is expressly prohibited under OAC rule 3745-77-07) shall be deemed compliance with the applicable requirements identified and addressed in this permit as of the date of permit issuance.
- b. This permit shield provision shall apply to any requirement identified in this permit pursuant to OAC rule 3745-77-07(F)(2), as a requirement that does not apply to the source or to one or more emissions units within the source.

(Authority for term: OAC rule 3745-77-07(F))

14. Operational Flexibility

The permittee is authorized to make the changes identified in OAC rule 3745-77-07(H)(1)(a) to (H)(1)(c) within the permitted stationary source without obtaining a permit revision, if such change is not a modification under any provision of Title I of the Act [as defined in OAC rule 3745-77-01(JJ)], and does not result in an exceedance of the emissions allowed under this permit (whether expressed therein as a rate of emissions or in terms of total emissions), and the permittee provides the Administrator of the U.S. EPA and the appropriate Ohio EPA District Office or local air agency with written notification within a minimum of seven days in advance of the proposed changes, unless the change is associated with, or in response to, emergency conditions. If less than seven days notice is provided because of a need to respond more quickly to such emergency conditions, the permittee shall provide notice to the Administrator of the U.S. EPA and the appropriate District Office of the Ohio EPA or local air agency as soon as possible after learning of the need to make the change. The notification shall contain the items required under OAC rule 3745-77-07(H)(2)(d).

(Authority for term: OAC rules 3745-77-07(H)(1) and (2))

15. Emergencies

The permittee shall have an affirmative defense of emergency to an action brought for noncompliance with technology-based emission limitations if the conditions of OAC rule 3745-77-07(G)(3) are met. This emergency defense provision is in addition to any emergency or upset provision contained in any applicable requirement.
(Authority for term: OAC rule 3745-77-07(G))

16. Off-Permit Changes

The owner or operator of a Title V source may make any change in its operations or emissions at the source that is not specifically addressed or prohibited in the Title V permit, without obtaining an amendment or modification of the permit, provided that the following conditions are met:

- a. The change does not result in conditions that violate any applicable requirements or that violate any existing federally enforceable permit term or condition.
- b. The permittee provides contemporaneous written notice of the change to the Director and the Administrator of the U.S. EPA. Such written notice shall describe each such change, the date of such change, any change in emissions or pollutants emitted, and any federally applicable requirement that would apply as a result of the change.
- c. The change shall not qualify for the permit shield under OAC rule 3745-77-07(F).
- d. The permittee shall keep a record describing all changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.
- e. The change is not subject to any applicable requirement under Title IV of the Act or is not a modification under any provision of Title I of the Act.

Paragraph (I) of rule 3745-77-07 of the Administrative Code applies only to modification or amendment of the permittee's Title V permit. The change made may require a permit to install under Chapter 3745-31 of the Administrative Code if the change constitutes a modification as defined in that Chapter. Nothing in paragraph (I) of rule 3745-77-07 of the Administrative Code shall affect any applicable obligation under Chapter 3745-31 of the Administrative Code.

(Authority for term: OAC rule 3745-77-07(I))

17. Compliance Method Requirements

Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee, including but not limited to, any challenge to the Credible Evidence Rule (see 62 Fed. Reg. 8314, Feb. 24, 1997), in the context of any future proceeding.

(This term is provided for informational purposes only.)

18. Insignificant Activities

Each insignificant activity that has one or more applicable requirements shall comply with those applicable requirements.

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

19. Permit to Install Requirement

Prior to the "installation" or "modification" of any "air contaminant source," as those terms are defined in OAC rule 3745-31-01, a permit to install must be obtained from the Ohio EPA pursuant to OAC Chapter 3745-31.

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

20. 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.

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

21. Permanent Shutdown of an Emissions Unit

The permittee may notify Ohio EPA of any emissions unit that is permanently shut down by submitting a certification by the responsible official of the date on which the emissions unit was permanently shut down. Authorization to operate the affected part or activity of the stationary source shall cease upon the date certified by the responsible official that the emissions unit was permanently shut down.

If an emissions unit is permanently shut down (i.e., that 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 and therefore ceases to meet the definition of an “emissions unit” as defined in OAC rule 3745-77-01(O)), rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the date of the certification and submission to Ohio EPA, to meet any monitoring, record keeping, reporting, or testing requirements, applicable to that emissions unit, except for any residual requirements, such as the quarterly deviation reports, semi-annual deviation reports and annual compliance certification covering the period during which the emissions unit last operated. All records relating to the shutdown emissions unit, generated while the emissions unit was in operation, must be maintained in accordance with law.

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

B. State Only Enforceable Section

1. Reporting Requirements Related to Monitoring and Record Keeping Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or record keeping 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 (i) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and record keeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) 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. In identifying each deviation, the permittee shall specify the applicable requirement for which the deviation occurred, describe each deviation, and provide the magnitude and duration of each deviation. 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.)

2. Records Retention Requirements

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.

3. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. 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 verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

4. 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 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. 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 emissions unit(s) that is (are) served by such control system(s).

5. 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.

6. 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 emission limitation (or control requirement), operational restriction and/or control device parameter limitation 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 by January 31, April 30, July 31, and October 31 of each year; and each report shall cover the previous calendar quarter.

The permittee is not required to submit a quarterly report which states that no deviations occurred during that quarter for the following situations:

- a. where an emissions unit has deviation reporting requirements for a specific emission limitation, operational restriction, or control device parameter limitation that override the deviation reporting requirements specified in General Term and Condition A.1.c.ii;
- b. where an uncontrolled emissions unit has no monitoring, record keeping, or reporting requirements and the emissions unit's applicable emission limitations are established at the potentials to emit; and
- c. where the company's responsible official has certified that an emissions unit has been permanently shut down.

Part II - Specific Facility Terms and Conditions

A. State and Federally Enforceable Section

1. Wheeling-Pittsburgh Steel Corporation and Mingo Junction Energy Center, LLC (MJEC) have been determined to be one facility for permitting purposes under 40 CFR Part 52.21, OAC Chapter 3745-31, and OAC Chapter 3745-77.
2. The following insignificant emissions unit is located at this facility:

B006 - emergency generator (PTI 06-06309).

Each insignificant emissions unit at this facility must comply with all applicable State and federal regulations, as well as any emission limitations and/or control requirements contained within the identified permit to install for the emissions unit. Insignificant emissions units listed above that are not subject to specific permit to install requirements are subject to one or more applicable requirements contained in the SIP-approved versions of OAC Chapters 3745-17, 3745-18, and 3745-21.

B. State Only Enforceable Section

1. The following insignificant emissions units located at this facility have no applicable requirements or are exempt from permit requirements pursuant to the de minimis criteria established in OAC rule 3745-15-05:

Z001 - small parts cleaner (no applicable rules);
Z002 - small chemical storage tanks (no applicable rules);
Z003 - space heaters (no applicable rules); and
Z004 - cooling tower (no applicable rules).

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler 1 (B001)

Activity Description: The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
180 MMBtu/hr boiler fired with natural gas and/or clean blast furnace gas	OAC rule 3745-31-05(A)(3) (PTI 06-06309)	Particulate matter (PM) and particulate matter emissions with a diameter less than 10 microns (PM10) shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas. PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas. PM/PM10 emissions shall not exceed 2.6 lbs/hr. PM/PM10 emissions shall not exceed 11.4 tons/year.

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 1 (B001)**

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

Nitrogen oxides (NOx) emissions shall not exceed 0.20 lb/MMBtu, as a 3-hour average, when burning natural gas or natural gas/blast furnace gas blend.

NOx emissions shall not exceed 36.0 lbs/hr, as a 3-hour average.

NOx emissions shall not exceed 157.7 tons/year.

Carbon monoxide (CO) emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or natural gas/blast furnace gas blend.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Volatile organic compound (VOC) emissions shall not exceed 1.0 lb/hr.

VOC emissions shall not exceed 4.38 tons/year.

Sulfur dioxide (SO₂) emissions shall not exceed 45.7 lbs/hr, as a 3-hour average.

SO₂ emissions shall not exceed 200.2 tons/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08(B), 3745-23-06(B), and 3745-31-05(C).

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 1 (B001)**

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-31-05(C) (PTI 06-06309)	PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. NOx emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. SO2 emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.c.
	40 CFR Part 60, Subpart Db	The NOx emission limitation specified by this rule is less stringent than or equivalent to the NOx emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** For purposes of this permit, "clean blast furnace gas" is defined as blast furnace gas which has had particulate matter controlled by Wheeling-Pittsburgh Steel's properly operating scrubber system on Blast Furnace Number 5.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

II. Operational Restrictions

- 1.** Natural gas usage shall not exceed 3,062 MMCF per rolling, 12-month period and clean blast furnace gas usage shall not exceed 46,338 MMCF per rolling, 12-month period for Mingo Junction Energy Center emissions units B001, B002, B003, and B004, combined.
- 2.** This emissions unit shall be operated only in conjunction with the permanent shutdown of the Wheeling-Pittsburgh Steel Corporation Mingo Junction Boiler House, emissions units B005, B006, B007, B008, B009, B010, B011, and B012 under Ohio EPA premise number 0641090010.

III. Monitoring and/or Record Keeping Requirements

- 1.** For each day during which the permittee burns a fuel other than natural gas or a combination of natural gas and clean blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2.** In order to accurately determine the heat input rates for this emissions unit, the permittee shall install, operate, and maintain equipment to continuously monitor and record the actual natural gas and clean blast furnace gas fuel flow rates to this emissions unit when the emissions unit is in operation. The permittee shall demonstrate that each fuel flowmeter used meets a flowmeter accuracy of 2.0 percent. This shall be accomplished not later than 60 days after the issuance of this permit by performing an initial transmitter accuracy test and a primary element visual inspection. Thereafter, the permittee shall perform a transmitter accuracy test once every four fuel flowmeter QA operating quarters (as defined in 40 CFR Part 72.2) and a primary element visual inspection once every 12 calendar quarters. The transmitter accuracy tests and primary element visual inspections shall be performed in accordance with the procedures specified in 40 CFR Part 75, Appendix D, Sections 2.1.6.1(a) through (c) (Transmitter Accuracy Test), 2.1.6.3 (Failure of Transmitter(s)), and 2.1.6.4 (Primary Element Inspection). If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75. If the fuel flowmeter is replaced, the replacement meter shall be certified within 60 days after installation, in accordance with the procedures specified above.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003, and B004, combined:
- the total quantity of natural gas burned, in cubic feet;
 - the total quantity of clean blast furnace gas burned, in cubic feet;
 - the rolling, 12-month summation of the total quantity of natural gas burned, in cubic feet;
 - the rolling, 12-month summation of the total quantity of clean blast furnace gas burned, in cubic feet;
 - the total PM/PM10, CO, VOC, and SO₂ emissions, in tons; and
 - the rolling, 12-month summations of the PM/PM10, CO, VOC, and SO₂ emissions, in tons.

For natural gas usage, the PM/PM10, CO, VOC, and SO₂ emissions shall be determined using the emission factors from AP-42 (Section 1.4, July 1998) and the records required pursuant to section A.III. For clean blast furnace gas usage, the PM/PM10, CO, VOC, and SO₂ emissions shall be determined using the emission factors derived from the results of the most recent emission tests that demonstrated that the emissions units were in compliance and the records required pursuant to section A.III.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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:
- the color of the emissions;
 - whether the emissions are representative of normal operations;
 - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - the total duration of any visible emission incident; and
 - any corrective actions taken to eliminate the visible emissions.
5. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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

The permittee shall perform certification tests for the monitoring system in accordance with 40 CFR Part 60, Appendix B, Performance Specification 2 and the Performance Specification 6 relative accuracy requirements, within 90 days after issuance of this permit. The fuel flow meters used in conjunction with this monitoring system must demonstrate conformance with the requirements specified in Section A.III.2 prior to conducting the certification tests. Personnel from the Ohio EPA, Central Office, shall be notified 30 days prior to the initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, Central Office, within 30 days after the test is completed. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in units of the applicable standard(s) in the appropriate averaging period (i.e., lb/MMBtu, lb/hr, lb/hr as a 3-hr average, tons/month, and tons/rolling, 12-month period), results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy audits, and magnitudes of manual calibration adjustments.

A statement of certification of the existing continuous NO_x monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Director (the Ohio EPA, Southeast District Office) upon request.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee is still required to provide the relative accuracy audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60.

6. The F-factor for clean blast furnace gas shall be calculated on an hourly basis in accordance with equation 19-13 of 40 CFR Part 60, Appendix A, Method 19. The hourly calculations shall be based upon the clean blast furnace gas constituent concentrations as measured by Wheeling-Pittsburgh Steel, the calculated clean blast furnace gas density, and the clean blast furnace gas and natural gas flow rates and stack oxygen concentrations measured by the permittee. If the permittee demonstrates to the satisfaction of the Ohio EPA that a reasonably accurate default F-factor for clean blast furnace gas may be calculated using worst-case assumptions, the permittee may submit a written request to the Ohio EPA to discontinue hourly calculations of the F-factor. The F-factor for natural gas shall be based upon the data from Table 19-1 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be calculated in accordance with equation 19-16 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be used in conjunction with the NO_x continuous monitoring system data to determine the NO_x emission rates.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60. The monitoring and recording equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or clean blast furnace gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each month during which the rolling, 12-month total natural gas usage exceeds 3,062 MMCF, and the actual total monthly usage rate for each such month;
 - b. each month during which the rolling, 12-month total clean blast furnace gas usage exceeds 46,338 MMCF, and the actual total monthly usage rate for each such month; and
 - c. all exceedances of the rolling, 12-month PM/PM10, CO, VOC, and SO₂ emission limitations.

The quarterly reports shall be submitted in accordance with Part 1 - General Term and Condition A.1.c.ii of this permit.

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions (in tons) for each rolling, 12-month period during the calendar quarter.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of 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.

5. The permittee shall also submit annual reports that specify the total PM/PM10, NO_x, CO, VOC, and SO₂ emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas.

Applicable Compliance Method:

This emission limitation has been established based upon manufacturer's data for natural gas combustion.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2 while burning only natural gas.

1.c Emission Limitation:

PM/PM10 emissions shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $0.0151 \times 0.95 + 0.004 \times 0.05 = 0.0145$ lb/MMBtu

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

1.d Emission Limitation:

PM/PM10 emissions shall not exceed 11.4 tons/year.

Applicable Compliance Method:

This emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with this emission limitation will also be demonstrated.

1.e Emission Limitation:

PM/PM10 emissions shall not exceed 2.6 lbs/hr.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $180 \times [(0.0151 \times 0.95 + 0.004 \times 0.05)] = 2.6$ lbs/hr.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.f Emission Limitations:

VOC emissions shall not exceed 1.0 lb/hr.
VOC emissions shall not exceed 4.38 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 emission factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998).

$180 \text{ MMBtu/hr} \times 5.5 \text{ lbs/MMCF} / 1000 \text{ MMBtu/MMCF} = 1.0 \text{ lb/hr.}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

$1.0 \text{ lb/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 4.38 \text{ tons/year.}$

1.g Emission Limitations:

NOx emissions shall not exceed 0.20 lb/MMBtu as a 3-hour average when burning natural gas or a blend of natural gas and clean blast furnace gas.
NOx emissions shall not exceed 36.0 lbs/hr as a 3-hour average.
NOx emissions shall not exceed 157.7 tons/year.

Applicable Compliance Methods:

The lb/MMBtu NOx emission limitation has been established based upon a manufacturer's performance guarantee. The lb/hr emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity and is based on the worst case emission condition of 100% natural gas. ($0.20 \times 180 = 36.0$)

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

$36 \text{ lbs/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 157.7 \text{ tons/year.}$

Compliance with these emission limitations shall be demonstrated based upon the records required pursuant to section A.III.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.h Emission Limitations:

CO emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or a blend of natural gas and clean blast furnace gas.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Applicable Compliance Methods:

The lb/MMBtu emission limitation has been established based upon a manufacturer's performance guarantee for both natural gas and clean blast furnace gas. The hourly emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity of 180 MMBtu/hr.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.i Emission Limitations:

SO₂ emissions shall not exceed 45.7 lbs/hr.

SO₂ emissions shall not exceed 200.2 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established based upon the results of emission testing conducted on this emissions unit in July, 1999.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.j Emission Limitation:

NO_x emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by using the maximum annual heat input rate for emissions units B001 through B004, combined, the maximum heat input rate based upon the restricted natural gas usage rate, and NO_x emission factors for natural gas and clean blast furnace gas (0.2 lb/MMBtu and 0.06 lb/MMBtu, respectively) in accordance with the following equation:

$$\frac{((3,062,000 \text{ MMBtu/yr} \times 0.2 \text{ lb/MMBtu}) + (180 \text{ MMBtu/hr} \times 8760 \text{ hr/yr} \times 4 \text{ boilers} - 3,062,000 \text{ MMBtu/yr}) \times 0.06 \text{ lb/MMBtu})}{2000 \text{ lbs/ton}} = 403.6 \text{ tons/rolling, 12-month period.}$$

Compliance with this emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

1.k Emission Limitation:

CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001 through B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for CO of 0.045 lb CO/MMBtu. At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month CO emissions are 1,576,800 MMBtu/yr X 0.045 lb CO/MMBtu X 4 boilers/2000 lbs/ton = 141.9 tons CO/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.l Emission Limitation:

VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum allowable rolling 12-month natural gas usage rate for emissions units B001 through B004, combined, by the AP-42 factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998). 3,062 MMCF X 5.5 lbs VOC/MMCF X 1 ton/2000 lbs. The VOC emissions from the burning of clean blast furnace gas are considered to be negligible.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.m Emission Limitation:

PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for the combination of natural gas and clean blast furnace gas of 0.0145 lb PM/PM10/MMBtu (see A.V.1.c above). At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month PM/PM10 emissions are 1,576,800 MMBtu/yr X 0.0145 lb PM/PM10/MMBtu X 4 boilers/2000 lbs/ton = 45.7 tons PM/PM10/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.n Emission Limitation:

SO₂ emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established using the maximum allowable rolling, 12-month clean blast furnace gas usage rate for emissions units B001 through B004, combined, a clean blast furnace gas heat content of 85 Btu/CF, and an emission factor for clean blast furnace gas of 0.2539 lb SO₂/MMBtu (the emission factor is based upon the results of emission tests conducted in July, 1999). 3,938,730 MMBtu/rolling, 12-month period X 0.2539 lb SO₂/MMBtu/2000 lbs/ton = 500.0 tons SO₂/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

2. If required, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted to demonstrate compliance with the short-term PM₁₀, VOC, NO_x, SO₂, and CO emission limitations and the visible particulate emission limitation.
 - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PM₁₀, Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Method 201 or 201A of 40 CFR Part 51, Appendix M;

for visible particulate emissions, Method 9 of 40 CFR 60 Appendix A;

for VOC, Methods 1 through 4 and Method 25 of 40 CFR 60 Appendix A;

for NO_x, Methods 1 through 4 and Method 7 of 40 CFR 60, Appendix A;

for SO₂, Methods 1 through 4 and Method 6 of 40 CFR 60, Appendix A; and

for CO, Methods 1 through 4 and Method 10 of 40 CFR 60 Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, while burning a blend of natural gas and clean blast furnace gas, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast 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, Southeast District Office.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler 2 (B002)

Activity Description: The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
180 MMBtu/hr boiler fired with natural gas and/or clean blast furnace gas	OAC rule 3745-31-05(A)(3) (PTI 06-06309)	Particulate matter (PM) and particulate matter emissions with a diameter less than 10 microns (PM10) shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas. PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas. PM/PM10 emissions shall not exceed 2.6 lbs/hr. PM/PM10 emissions shall not exceed 11.4 tons/year.

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 2 (B002)**

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

Nitrogen oxides (NOx) emissions shall not exceed 0.20 lb/MMBtu, as a 3-hour average, when burning natural gas or natural gas/blast furnace gas blend.

NOx emissions shall not exceed 36.0 lbs/hr, as a 3-hour average.

NOx emissions shall not exceed 157.7 tons/year.

Carbon monoxide (CO) emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or natural gas/blast furnace gas blend.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Volatile organic compound (VOC) emissions shall not exceed 1.0 lb/hr.

VOC emissions shall not exceed 4.38 tons/year.

Sulfur dioxide (SO₂) emissions shall not exceed 45.7 lbs/hr, as a 3-hour average.

SO₂ emissions shall not exceed 200.2 tons/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08(B), 3745-23-06(B), and 3745-31-05(C).

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 2 (B002)**

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-31-05(C) (PTI 06-06309)	PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. NOx emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. SO2 emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.c.
	40 CFR Part 60, Subpart Db	The NOx emission limitation specified by this rule is less stringent than or equivalent to the NOx emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** For purposes of this permit, "clean blast furnace gas" is defined as blast furnace gas which has had particulate matter controlled by Wheeling-Pittsburgh Steel's properly operating scrubber system on Blast Furnace Number 5.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

II. Operational Restrictions

- 1.** Natural gas usage shall not exceed 3,062 MMCF per rolling, 12-month period and clean blast furnace gas usage shall not exceed 46,338 MMCF per rolling, 12-month period for Mingo Junction Energy Center emissions units B001, B002, B003, and B004, combined.
- 2.** This emissions unit shall be operated only in conjunction with the permanent shutdown of the Wheeling-Pittsburgh Steel Corporation Mingo Junction Boiler House, emissions units B005, B006, B007, B008, B009, B010, B011, and B012 under Ohio EPA premise number 0641090010.

III. Monitoring and/or Record Keeping Requirements

- 1.** For each day during which the permittee burns a fuel other than natural gas or a combination of natural gas and clean blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2.** In order to accurately determine the heat input rates for this emissions unit, the permittee shall install, operate, and maintain equipment to continuously monitor and record the actual natural gas and clean blast furnace gas fuel flow rates to this emissions unit when the emissions unit is in operation. The permittee shall demonstrate that each fuel flowmeter used meets a flowmeter accuracy of 2.0 percent. This shall be accomplished not later than 60 days after the issuance of this permit by performing an initial transmitter accuracy test and a primary element visual inspection. Thereafter, the permittee shall perform a transmitter accuracy test once every four fuel flowmeter QA operating quarters (as defined in 40 CFR Part 72.2) and a primary element visual inspection once every 12 calendar quarters. The transmitter accuracy tests and primary element visual inspections shall be performed in accordance with the procedures specified in 40 CFR Part 75, Appendix D, Sections 2.1.6.1(a) through (c) (Transmitter Accuracy Test), 2.1.6.3 (Failure of Transmitter(s)), and 2.1.6.4 (Primary Element Inspection). If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75. If the fuel flowmeter is replaced, the replacement meter shall be certified within 60 days after installation, in accordance with the procedures specified above.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003, and B004, combined:
- the total quantity of natural gas burned, in cubic feet;
 - the total quantity of clean blast furnace gas burned, in cubic feet;
 - the rolling, 12-month summation of the total quantity of natural gas burned, in cubic feet;
 - the rolling, 12-month summation of the total quantity of clean blast furnace gas burned, in cubic feet;
 - the total PM/PM10, CO, VOC, and SO₂ emissions, in tons; and
 - the rolling, 12-month summations of the PM/PM10, CO, VOC, and SO₂ emissions, in tons.

For natural gas usage, the PM/PM10, CO, VOC, and SO₂ emissions shall be determined using the emission factors from AP-42 (Section 1.4, July 1998) and the records required pursuant to section A.III. For clean blast furnace gas usage, the PM/PM10, CO, VOC, and SO₂ emissions shall be determined using the emission factors derived from the results of the most recent emission tests that demonstrated that the emissions units were in compliance and the records required pursuant to section A.III.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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:
- the color of the emissions;
 - whether the emissions are representative of normal operations;
 - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - the total duration of any visible emission incident; and
 - any corrective actions taken to eliminate the visible emissions.
5. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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

The permittee shall perform certification tests for the monitoring system in accordance with 40 CFR Part 60, Appendix B, Performance Specification 2 and the Performance Specification 6 relative accuracy requirements, within 90 days after issuance of this permit. The fuel flow meters used in conjunction with this monitoring system must demonstrate conformance with the requirements specified in Section A.III.2 prior to conducting the certification tests. Personnel from the Ohio EPA, Central Office, shall be notified 30 days prior to the initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, Central Office, within 30 days after the test is completed. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in units of the applicable standard(s) in the appropriate averaging period (i.e., lb/MMBtu, lb/hr, lb/hr as a 3-hr average, tons/month, and tons/rolling, 12-month period), results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy audits, and magnitudes of manual calibration adjustments.

A statement of certification of the existing continuous NO_x monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Director (the Ohio EPA, Southeast District Office) upon request.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee is still required to provide the relative accuracy audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60.

6. The F-factor for clean blast furnace gas shall be calculated on an hourly basis in accordance with equation 19-13 of 40 CFR Part 60, Appendix A, Method 19. The hourly calculations shall be based upon the clean blast furnace gas constituent concentrations as measured by Wheeling-Pittsburgh Steel, the calculated clean blast furnace gas density, and the clean blast furnace gas and natural gas flow rates and stack oxygen concentrations measured by the permittee. If the permittee demonstrates to the satisfaction of the Ohio EPA that a reasonably accurate default F-factor for clean blast furnace gas may be calculated using worst-case assumptions, the permittee may submit a written request to the Ohio EPA to discontinue hourly calculations of the F-factor. The F-factor for natural gas shall be based upon the data from Table 19-1 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be calculated in accordance with equation 19-16 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be used in conjunction with the NO_x continuous monitoring system data to determine the NO_x emission rates.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60. The monitoring and recording equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or clean blast furnace gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each month during which the rolling, 12-month total natural gas usage exceeds 3,062 MMCF, and the actual total monthly usage rate for each such month;
 - b. each month during which the rolling, 12-month total clean blast furnace gas usage exceeds 46,338 MMCF, and the actual total monthly usage rate for each such month; and
 - c. all exceedances of the rolling, 12-month PM/PM10, CO, VOC, and SO₂ emission limitations.

The quarterly reports shall be submitted in accordance with Part 1 - General Term and Condition A.1.c.ii of this permit.

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions (in tons) for each rolling, 12-month period during the calendar quarter.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of 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.

5. The permittee shall also submit annual reports that specify the total PM/PM10, NO_x, CO, VOC, and SO₂ emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas.

Applicable Compliance Method:

This emission limitation has been established based upon manufacturer's data for natural gas combustion.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2 while burning only natural gas.

1.c Emission Limitation:

PM/PM10 emissions shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $0.0151 \times 0.95 + 0.004 \times 0.05 = 0.0145$ lb/MMBtu

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

1.d Emission Limitation:

PM/PM10 emissions shall not exceed 11.4 tons/year.

Applicable Compliance Method:

This emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with this emission limitation will also be demonstrated.

1.e Emission Limitation:

PM/PM10 emissions shall not exceed 2.6 lbs/hr.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $180 \times [(0.0151 \times 0.95 + 0.004 \times 0.05)] = 2.6$ lbs/hr.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.f Emission Limitations:

VOC emissions shall not exceed 1.0 lb/hr.
VOC emissions shall not exceed 4.38 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 emission factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998).

$180 \text{ MMBtu/hr} \times 5.5 \text{ lbs/MMCF} / 1000 \text{ MMBtu/MMCF} = 1.0 \text{ lb/hr.}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

$1.0 \text{ lb/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 4.38 \text{ tons/year.}$

1.g Emission Limitations:

NOx emissions shall not exceed 0.20 lb/MMBtu as a 3-hour average when burning natural gas or a blend of natural gas and clean blast furnace gas.
NOx emissions shall not exceed 36.0 lbs/hr as a 3-hour average.
NOx emissions shall not exceed 157.7 tons/year.

Applicable Compliance Methods:

The lb/MMBtu NOx emission limitation has been established based upon a manufacturer's performance guarantee. The lb/hr emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity and is based on the worst case emission condition of 100% natural gas. ($0.20 \times 180 = 36.0$)

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

$36 \text{ lbs/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 157.7 \text{ tons/year.}$

Compliance with these emission limitations shall be demonstrated based upon the records required pursuant to section A.III.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.h Emission Limitations:

CO emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or a blend of natural gas and clean blast furnace gas.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Applicable Compliance Methods:

The lb/MMBtu emission limitation has been established based upon a manufacturer's performance guarantee for both natural gas and clean blast furnace gas. The hourly emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity of 180 MMBtu/hr.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.i Emission Limitations:

SO₂ emissions shall not exceed 45.7 lbs/hr.

SO₂ emissions shall not exceed 200.2 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established based upon the results of emission testing conducted on this emissions unit in July, 1999.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.j Emission Limitation:

NO_x emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by using the maximum annual heat input rate for emissions units B001 through B004, combined, the maximum heat input rate based upon the restricted natural gas usage rate, and NO_x emission factors for natural gas and clean blast furnace gas (0.2 lb/MMBtu and 0.06 lb/MMBtu, respectively) in accordance with the following equation:

$$\frac{((3,062,000 \text{ MMBtu/yr} \times 0.2 \text{ lb/MMBtu}) + (180 \text{ MMBtu/hr} \times 8760 \text{ hr/yr} \times 4 \text{ boilers} - 3,062,000 \text{ MMBtu/yr}) \times 0.06 \text{ lb/MMBtu})}{2000 \text{ lbs/ton}} = 403.6 \text{ tons/rolling, 12-month period.}$$

Compliance with this emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

1.k Emission Limitation:

CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001 through B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for CO of 0.045 lb CO/MMBtu. At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month CO emissions are 1,576,800 MMBtu/yr X 0.045 lb CO/MMBtu X 4 boilers/2000 lbs/ton = 141.9 tons CO/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.l Emission Limitation:

VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum allowable rolling 12-month natural gas usage rate for emissions units B001 through B004, combined, by the AP-42 factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998). 3,062 MMCF X 5.5 lbs VOC/MMCF X 1 ton/2000 lbs. The VOC emissions from the burning of clean blast furnace gas are considered to be negligible.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.m Emission Limitation:

PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for the combination of natural gas and clean blast furnace gas of 0.0145 lb PM/PM10/MMBtu (see A.V.1.c above). At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month PM/PM10 emissions are 1,576,800 MMBtu/yr X 0.0145 lb PM/PM10/MMBtu X 4 boilers/2000 lbs/ton = 45.7 tons PM/PM10/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.n Emission Limitation:

SO₂ emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established using the maximum allowable rolling, 12-month clean blast furnace gas usage rate for emissions units B001 through B004, combined, a clean blast furnace gas heat content of 85 Btu/CF, and an emission factor for clean blast furnace gas of 0.2539 lb SO₂/MMBtu (the emission factor is based upon the results of emission tests conducted in July, 1999). 3,938,730 MMBtu/rolling, 12-month period X 0.2539 lb SO₂/MMBtu/2000 lbs/ton = 500.0 tons SO₂/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

2. If required, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted to demonstrate compliance with the short-term PM₁₀, VOC, NO_x, SO₂, and CO emission limitations and the visible particulate emission limitation.
 - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PM₁₀, Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Method 201 or 201A of 40 CFR Part 51, Appendix M;

for visible particulate emissions, Method 9 of 40 CFR 60 Appendix A;

for VOC, Methods 1 through 4 and Method 25 of 40 CFR 60 Appendix A;

for NO_x, Methods 1 through 4 and Method 7 of 40 CFR 60, Appendix A;

for SO₂, Methods 1 through 4 and Method 6 of 40 CFR 60, Appendix A; and

for CO, Methods 1 through 4 and Method 10 of 40 CFR 60 Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, while burning a blend of natural gas and clean blast furnace gas, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast 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, Southeast District Office.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler 3 (B003)

Activity Description: The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
180 MMBtu/hr boiler fired with natural gas and/or clean blast furnace gas	OAC rule 3745-31-05(A)(3) (PTI 06-06309)	Particulate matter (PM) and particulate matter emissions with a diameter less than 10 microns (PM10) shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas. PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas. PM/PM10 emissions shall not exceed 2.6 lbs/hr. PM/PM10 emissions shall not exceed 11.4 tons/year.

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 3 (B003)**

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

Nitrogen oxides (NOx) emissions shall not exceed 0.20 lb/MMBtu, as a 3-hour average, when burning natural gas or natural gas/blast furnace gas blend.

NOx emissions shall not exceed 36.0 lbs/hr, as a 3-hour average.

NOx emissions shall not exceed 157.7 tons/year.

Carbon monoxide (CO) emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or natural gas/blast furnace gas blend.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Volatile organic compound (VOC) emissions shall not exceed 1.0 lb/hr.

VOC emissions shall not exceed 4.38 tons/year.

Sulfur dioxide (SO₂) emissions shall not exceed 45.7 lbs/hr, as a 3-hour average.

SO₂ emissions shall not exceed 200.2 tons/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08(B), 3745-23-06(B), and 3745-31-05(C).

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 3 (B003)**

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-31-05(C) (PTI 06-06309)	PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. NOx emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. SO2 emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.c.
	40 CFR Part 60, Subpart Db	The NOx emission limitation specified by this rule is less stringent than or equivalent to the NOx emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a** For purposes of this permit, "clean blast furnace gas" is defined as blast furnace gas which has had particulate matter controlled by Wheeling-Pittsburgh Steel's properly operating scrubber system on Blast Furnace Number 5.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

II. Operational Restrictions

- 1.** Natural gas usage shall not exceed 3,062 MMCF per rolling, 12-month period and clean blast furnace gas usage shall not exceed 46,338 MMCF per rolling, 12-month period for Mingo Junction Energy Center emissions units B001, B002, B003, and B004, combined.
- 2.** This emissions unit shall be operated only in conjunction with the permanent shutdown of the Wheeling-Pittsburgh Steel Corporation Mingo Junction Boiler House, emissions units B005, B006, B007, B008, B009, B010, B011, and B012 under Ohio EPA premise number 0641090010.

III. Monitoring and/or Record Keeping Requirements

- 1.** For each day during which the permittee burns a fuel other than natural gas or a combination of natural gas and clean blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
- 2.** In order to accurately determine the heat input rates for this emissions unit, the permittee shall install, operate, and maintain equipment to continuously monitor and record the actual natural gas and clean blast furnace gas fuel flow rates to this emissions unit when the emissions unit is in operation. The permittee shall demonstrate that each fuel flowmeter used meets a flowmeter accuracy of 2.0 percent. This shall be accomplished not later than 60 days after the issuance of this permit by performing an initial transmitter accuracy test and a primary element visual inspection. Thereafter, the permittee shall perform a transmitter accuracy test once every four fuel flowmeter QA operating quarters (as defined in 40 CFR Part 72.2) and a primary element visual inspection once every 12 calendar quarters. The transmitter accuracy tests and primary element visual inspections shall be performed in accordance with the procedures specified in 40 CFR Part 75, Appendix D, Sections 2.1.6.1(a) through (c) (Transmitter Accuracy Test), 2.1.6.3 (Failure of Transmitter(s)), and 2.1.6.4 (Primary Element Inspection). If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75. If the fuel flowmeter is replaced, the replacement meter shall be certified within 60 days after installation, in accordance with the procedures specified above.

III. Monitoring and/or Record Keeping Requirements (continued)

3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003, and B004, combined:
- the total quantity of natural gas burned, in cubic feet;
 - the total quantity of clean blast furnace gas burned, in cubic feet;
 - the rolling, 12-month summation of the total quantity of natural gas burned, in cubic feet;
 - the rolling, 12-month summation of the total quantity of clean blast furnace gas burned, in cubic feet;
 - the total PM/PM10, CO, VOC, and SO₂ emissions, in tons; and
 - the rolling, 12-month summations of the PM/PM10, CO, VOC, and SO₂ emissions, in tons.

For natural gas usage, the PM/PM10, CO, VOC, and SO₂ emissions shall be determined using the emission factors from AP-42 (Section 1.4, July 1998) and the records required pursuant to section A.III. For clean blast furnace gas usage, the PM/PM10, CO, VOC, and SO₂ emissions shall be determined using the emission factors derived from the results of the most recent emission tests that demonstrated that the emissions units were in compliance and the records required pursuant to section A.III.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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:
- the color of the emissions;
 - whether the emissions are representative of normal operations;
 - if the emissions are not representative of normal operations, the cause of the abnormal emissions;
 - the total duration of any visible emission incident; and
 - any corrective actions taken to eliminate the visible emissions.
5. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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

The permittee shall perform certification tests for the monitoring system in accordance with 40 CFR Part 60, Appendix B, Performance Specification 2 and the Performance Specification 6 relative accuracy requirements, within 90 days after issuance of this permit. The fuel flow meters used in conjunction with this monitoring system must demonstrate conformance with the requirements specified in Section A.III.2 prior to conducting the certification tests. Personnel from the Ohio EPA, Central Office, shall be notified 30 days prior to the initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, Central Office, within 30 days after the test is completed. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee shall maintain records of the following data obtained by the continuous NO_x monitoring system: emissions of NO_x in units of the applicable standard(s) in the appropriate averaging period (i.e., lb/MMBtu, lb/hr, lb/hr as a 3-hr average, tons/month, and tons/rolling, 12-month period), results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy audits, and magnitudes of manual calibration adjustments.

A statement of certification of the existing continuous NO_x monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Director (the Ohio EPA, Southeast District Office) upon request.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NO_x monitoring system designed to ensure continuous valid and representative readings of NO_x emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NO_x monitoring system must be kept on site and available for inspection during regular office hours.

The permittee is still required to provide the relative accuracy audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60.

6. The F-factor for clean blast furnace gas shall be calculated on an hourly basis in accordance with equation 19-13 of 40 CFR Part 60, Appendix A, Method 19. The hourly calculations shall be based upon the clean blast furnace gas constituent concentrations as measured by Wheeling-Pittsburgh Steel, the calculated clean blast furnace gas density, and the clean blast furnace gas and natural gas flow rates and stack oxygen concentrations measured by the permittee. If the permittee demonstrates to the satisfaction of the Ohio EPA that a reasonably accurate default F-factor for clean blast furnace gas may be calculated using worst-case assumptions, the permittee may submit a written request to the Ohio EPA to discontinue hourly calculations of the F-factor. The F-factor for natural gas shall be based upon the data from Table 19-1 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be calculated in accordance with equation 19-16 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be used in conjunction with the NO_x continuous monitoring system data to determine the NO_x emission rates.
7. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60. The monitoring and recording equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or clean blast furnace gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.

IV. Reporting Requirements (continued)

3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each month during which the rolling, 12-month total natural gas usage exceeds 3,062 MMCF, and the actual total monthly usage rate for each such month;
 - b. each month during which the rolling, 12-month total clean blast furnace gas usage exceeds 46,338 MMCF, and the actual total monthly usage rate for each such month; and
 - c. all exceedances of the rolling, 12-month PM/PM10, CO, VOC, and SO₂ emission limitations.

The quarterly reports shall be submitted in accordance with Part 1 - General Term and Condition A.1.c.ii of this permit.

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions (in tons) for each rolling, 12-month period during the calendar quarter.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of 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.

5. The permittee shall also submit annual reports that specify the total PM/PM10, NO_x, CO, VOC, and SO₂ emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

- 1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

V. Testing Requirements (continued)

1.b Emission Limitation:

PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas.

Applicable Compliance Method:

This emission limitation has been established based upon manufacturer's data for natural gas combustion.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2 while burning only natural gas.

1.c Emission Limitation:

PM/PM10 emissions shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $0.0151 \times 0.95 + 0.004 \times 0.05 = 0.0145$ lb/MMBtu

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

1.d Emission Limitation:

PM/PM10 emissions shall not exceed 11.4 tons/year.

Applicable Compliance Method:

This emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with this emission limitation will also be demonstrated.

1.e Emission Limitation:

PM/PM10 emissions shall not exceed 2.6 lbs/hr.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $180 \times [(0.0151 \times 0.95 + 0.004 \times 0.05)] = 2.6$ lbs/hr.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.f Emission Limitations:

VOC emissions shall not exceed 1.0 lb/hr.
VOC emissions shall not exceed 4.38 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 emission factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998).

$180 \text{ MMBtu/hr} \times 5.5 \text{ lbs/MMCF} / 1000 \text{ MMBtu/MMCF} = 1.0 \text{ lb/hr.}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

$1.0 \text{ lb/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 4.38 \text{ tons/year.}$

1.g Emission Limitations:

NOx emissions shall not exceed 0.20 lb/MMBtu as a 3-hour average when burning natural gas or a blend of natural gas and clean blast furnace gas.
NOx emissions shall not exceed 36.0 lbs/hr as a 3-hour average.
NOx emissions shall not exceed 157.7 tons/year.

Applicable Compliance Methods:

The lb/MMBtu NOx emission limitation has been established based upon a manufacturer's performance guarantee. The lb/hr emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity and is based on the worst case emission condition of 100% natural gas. ($0.20 \times 180 = 36.0$)

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

$36 \text{ lbs/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 157.7 \text{ tons/year.}$

Compliance with these emission limitations shall be demonstrated based upon the records required pursuant to section A.III.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.h Emission Limitations:

CO emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or a blend of natural gas and clean blast furnace gas.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Applicable Compliance Methods:

The lb/MMBtu emission limitation has been established based upon a manufacturer's performance guarantee for both natural gas and clean blast furnace gas. The hourly emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity of 180 MMBtu/hr.

If required, the permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.i Emission Limitations:

SO₂ emissions shall not exceed 45.7 lbs/hr.

SO₂ emissions shall not exceed 200.2 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established based upon the results of emission testing conducted on this emissions unit in July, 1999.

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.j Emission Limitation:

NO_x emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by using the maximum annual heat input rate for emissions units B001 through B004, combined, the maximum heat input rate based upon the restricted natural gas usage rate, and NO_x emission factors for natural gas and clean blast furnace gas (0.2 lb/MMBtu and 0.06 lb/MMBtu, respectively) in accordance with the following equation:

$$\frac{((3,062,000 \text{ MMBtu/yr} \times 0.2 \text{ lb/MMBtu}) + (180 \text{ MMBtu/hr} \times 8760 \text{ hr/yr} \times 4 \text{ boilers} - 3,062,000 \text{ MMBtu/yr}) \times 0.06 \text{ lb/MMBtu})}{2000 \text{ lbs/ton}} = 403.6 \text{ tons/rolling, 12-month period.}$$

Compliance with this emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

1.k Emission Limitation:

CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001 through B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for CO of 0.045 lb CO/MMBtu. At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month CO emissions are 1,576,800 MMBtu/yr X 0.045 lb CO/MMBtu X 4 boilers/2000 lbs/ton = 141.9 tons CO/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.l Emission Limitation:

VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum allowable rolling 12-month natural gas usage rate for emissions units B001 through B004, combined, by the AP-42 factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998). 3,062 MMCF X 5.5 lbs VOC/MMCF X 1 ton/2000 lbs. The VOC emissions from the burning of clean blast furnace gas are considered to be negligible.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.m Emission Limitation:

PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for the combination of natural gas and clean blast furnace gas of 0.0145 lb PM/PM10/MMBtu (see A.V.1.c above). At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month PM/PM10 emissions are 1,576,800 MMBtu/yr X 0.0145 lb PM/PM10/MMBtu X 4 boilers/2000 lbs/ton = 45.7 tons PM/PM10/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.n Emission Limitation:

SO₂ emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established using the maximum allowable rolling, 12-month clean blast furnace gas usage rate for emissions units B001 through B004, combined, a clean blast furnace gas heat content of 85 Btu/CF, and an emission factor for clean blast furnace gas of 0.2539 lb SO₂/MMBtu (the emission factor is based upon the results of emission tests conducted in July, 1999). 3,938,730 MMBtu/rolling, 12-month period X 0.2539 lb SO₂/MMBtu/2000 lbs/ton = 500.0 tons SO₂/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

2. If required, the permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:
 - a. The emission testing shall be conducted to demonstrate compliance with the short-term PM₁₀, VOC, NO_x, SO₂, and CO emission limitations and the visible particulate emission limitation.
 - b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PM₁₀, Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Method 201 or 201A of 40 CFR Part 51, Appendix M;

for visible particulate emissions, Method 9 of 40 CFR 60 Appendix A;

for VOC, Methods 1 through 4 and Method 25 of 40 CFR 60 Appendix A;

for NO_x, Methods 1 through 4 and Method 7 of 40 CFR 60, Appendix A;

for SO₂, Methods 1 through 4 and Method 6 of 40 CFR 60, Appendix A; and

for CO, Methods 1 through 4 and Method 10 of 40 CFR 60 Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

- c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, while burning a blend of natural gas and clean blast furnace gas, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast 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, Southeast District Office.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

Part III - Terms and Conditions for Emissions Units

Emissions Unit ID: Boiler 4 (B004)

Activity Description: The boiler will burn blast furnace gas as a primary fuel with natural gas as a supplemental fuel for generating process steam and electricity.

A. State and Federally Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
180 MMBtu/hr boiler fired with natural gas and/or clean blast furnace gas	OAC rule 3745-31-05(A)(3) (PTI 06-06309)	Particulate matter (PM) and particulate matter emissions with a diameter less than 10 microns (PM10) shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas. PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas. PM/PM10 emissions shall not exceed 2.6 lbs/hr. PM/PM10 emissions shall not exceed 11.4 tons/year.

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 4 (B004)**

**Operations, Property,
and/or Equipment**

**Applicable Rules/
Requirements**

**Applicable Emissions
Limitations/Control
Measures**

Nitrogen oxides (NOx) emissions shall not exceed 0.20 lb/MMBtu, as a 3-hour average, when burning natural gas or natural gas/blast furnace gas blend.

NOx emissions shall not exceed 36.0 lbs/hr, as a 3-hour average.

NOx emissions shall not exceed 157.7 tons/year.

Carbon monoxide (CO) emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or natural gas/blast furnace gas blend.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Volatile organic compound (VOC) emissions shall not exceed 1.0 lb/hr.

VOC emissions shall not exceed 4.38 tons/year.

Sulfur dioxide (SO₂) emissions shall not exceed 45.7 lbs/hr, as a 3-hour average.

SO₂ emissions shall not exceed 200.2 tons/year.

The requirements of this rule also include compliance with the requirements of OAC rules 3745-17-07(A), 3745-21-08(B), 3745-23-06(B), and 3745-31-05(C).

Facility Name: **Mingo Junction Energy Center, LLC**

Facility ID: **06-41-09-0234**

Emissions Unit: **Boiler 4 (B004)**

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
	OAC rule 3745-31-05(C) (PTI 06-06309)	PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. NOx emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined. SO2 emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.
	OAC rule 3745-17-07(A)	Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.
	OAC rule 3745-17-10(B)(1)	The particulate emission limitation specified by this rule is less stringent than the particulate emission limitations established pursuant to OAC rule 3745-31-05(A)(3).
	OAC rule 3745-21-08(B)	See section A.I.2.b.
	OAC rule 3745-23-06(B)	See section A.I.2.c.
	40 CFR Part 60, Subpart Db	The NOx emission limitation specified by this rule is less stringent than or equivalent to the NOx emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

- 2.a For purposes of this permit, "clean blast furnace gas" is defined as blast furnace gas which has had particulate matter controlled by Wheeling-Pittsburgh Steel's properly operating scrubber system on Blast Furnace Number 5.

2. Additional Terms and Conditions (continued)

- 2.b** The permittee has satisfied the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

On November 5, 2002, OAC rule 3745-21-08 was revised to delete paragraph (B); therefore, paragraph (B) is no longer part of the State regulations. However, that rule revision has not yet been submitted to the U.S. EPA as a revision to Ohio's State Implementation Plan (SIP). Therefore, until the SIP revision occurs and the U.S. EPA approves the revisions to OAC rule 3745-21-08, the requirement to satisfy the "best available control techniques and operating practices" still exists as part of the federally-approved SIP for Ohio.

- 2.c** The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in Permit to Install 06-06309.

II. Operational Restrictions

1. Natural gas usage shall not exceed 3,062 MMCF per rolling, 12-month period and clean blast furnace gas usage shall not exceed 46,338 MMCF per rolling, 12-month period for Mingo Junction Energy Center emissions units B001, B002, B003, and B004, combined.
2. This emissions unit shall be operated only in conjunction with the permanent shutdown of the Wheeling-Pittsburgh Steel Corporation Mingo Junction Boiler House, emissions units B005, B006, B007, B008, B009, B010, B011, and B012 under Ohio EPA premise number 0641090010.

III. Monitoring and/or Record Keeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas or a combination of natural gas and clean blast furnace gas, the permittee shall maintain a record of the type and quantity of fuel burned in this emissions unit.
2. In order to accurately determine the heat input rates for this emissions unit, the permittee shall install, operate, and maintain equipment to continuously monitor and record the actual natural gas and clean blast furnace gas fuel flow rates to this emissions unit when the emissions unit is in operation. The permittee shall demonstrate that each fuel flowmeter used meets a flowmeter accuracy of 2.0 percent. This shall be accomplished not later than 60 days after the issuance of this permit by performing an initial transmitter accuracy test and a primary element visual inspection. Thereafter, the permittee shall perform a transmitter accuracy test once every four fuel flowmeter QA operating quarters (as defined in 40 CFR Part 72.2) and a primary element visual inspection once every 12 calendar quarters. The transmitter accuracy tests and primary element visual inspections shall be performed in accordance with the procedures specified in 40 CFR Part 75, Appendix D, Sections 2.1.6.1(a) through (c) (Transmitter Accuracy Test), 2.1.6.3 (Failure of Transmitter(s)), and 2.1.6.4 (Primary Element Inspection). If the fuel flow monitoring and/or recording equipment is (are) not in service when the emissions unit is in operation, the permittee shall comply with the appropriate missing data procedures specified in 40 CFR Part 75. If the fuel flowmeter is replaced, the replacement meter shall be certified within 60 days after installation, in accordance with the procedures specified above.
3. The permittee shall maintain monthly records of the following information for emissions units B001, B002, B003, and B004, combined:
 - a. the total quantity of natural gas burned, in cubic feet;
 - b. the total quantity of clean blast furnace gas burned, in cubic feet;
 - c. the rolling, 12-month summation of the total quantity of natural gas burned, in cubic feet;
 - d. the rolling, 12-month summation of the total quantity of clean blast furnace gas burned, in cubic feet;
 - e. the total PM/PM10, CO, VOC, and SO₂* emissions, in tons; and
 - f. the rolling, 12-month summations of the PM/PM10, CO, VOC, and SO₂* emissions, in tons.

III. Monitoring and/or Record Keeping Requirements (continued)

For natural gas usage, the PM/PM10, CO, VOC, and SO₂* emissions shall be determined using the emission factors from AP-42 (Section 1.4, July 1998) and the records required pursuant to section A.III. For clean blast furnace gas usage, the PM/PM10, CO, VOC, and SO₂* emissions shall be determined using the emission factors derived from the results of the most recent emission tests that demonstrated that the emissions units were in compliance and the records required pursuant to section A.III.

* The SO₂ emissions for this emissions unit (B004) shall be based upon the data from the continuous SO₂ monitoring system. If the use of the continuous SO₂ monitoring system is discontinued pursuant to section A.III.9 of this permit, the SO₂ emissions may be determined using the approved SO₂ emission factor and the records required pursuant to section A.III.

4. The permittee shall perform weekly checks, when the emissions unit is in operation and when the weather conditions allow, for any visible particulate emissions from the stack 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 emission incident; and
 - e. any corrective actions taken to eliminate the visible emissions.
5. The permittee shall operate and maintain equipment to continuously monitor and record NO_x emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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

The permittee shall perform certification tests for the monitoring system in accordance with 40 CFR Part 60, Appendix B, Performance Specification 2 and the Performance Specification 6 relative accuracy requirements, within 90 days after issuance of this permit. The fuel flow meters used in conjunction with this monitoring system must demonstrate conformance with the requirements specified in Section A.III.2 prior to conducting the certification tests. Personnel from the Ohio EPA, Central Office, shall be notified 30 days prior to the initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, Central Office, within 30 days after the test is completed. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office. Certification of the continuous NO_x monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

III. Monitoring and/or Record Keeping Requirements (continued)

The permittee shall maintain records of the following data obtained by the continuous NOx monitoring system: emissions of NOx in units of the applicable standard(s) in the appropriate averaging period (i.e., lb/MMBtu, lb/hr, lb/hr as a 3-hr average, tons/month, and tons/rolling, 12-month period), results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy audits, and magnitudes of manual calibration adjustments.

A statement of certification of the existing continuous NOx monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification 2. Proof of certification shall be made available to the Director (the Ohio EPA, Southeast District Office) upon request.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous NOx monitoring system designed to ensure continuous valid and representative readings of NOx emissions in units of the applicable standard(s). The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous NOx monitoring system must be kept on site and available for inspection during regular office hours.

The permittee is still required to provide the relative accuracy audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60.

6. The permittee shall operate and maintain equipment to continuously monitor and record SO2 emissions from this emissions unit in units of the applicable standard(s). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

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

The purpose for the operation of the continuous SO2 monitoring system is to gather SO2 emission data over a period of time which is sufficient to establish an accurate, representative SO2 emission factor for clean blast furnace gas based upon the various operating scenarios of the Number 5 Blast Furnace at Wheeling-Pittsburgh Steel Corporation's Mingo Junction facility.

The permittee shall perform certification tests for the monitoring system in accordance with 40 CFR Part 60, Appendix B, Performance Specification 2 and the Performance Specification 6 relative accuracy requirements, within 90 days after issuance of this permit. The fuel flow meters used in conjunction with this monitoring system must demonstrate conformance with the requirements specified in Section A.III.2 prior to conducting the certification tests. Personnel from the Ohio EPA, Central Office, shall be notified 30 days prior to the initiation of the applicable tests and shall be permitted to examine equipment and witness the certification tests. In accordance with OAC rule 3745-15-04, all copies of the test results shall be submitted to the Ohio EPA, Central Office, within 30 days after the test is completed. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA, Southeast District Office.

III. Monitoring and/or Record Keeping Requirements (continued)

Certification of the continuous SO₂ monitoring system shall be granted upon determination by the Ohio EPA, Central Office that the system meets all requirements of ORC section 3704.03(I) and 40 CFR Part 60, Appendix B, Performance Specification 2.

The permittee shall maintain records of the following data obtained by the continuous SO₂ monitoring system: emissions of SO₂ in units of the applicable standard(s) in the appropriate averaging period (i.e., lb/hr, lb/hr as a 3-hr average, tons/month, and tons/rolling, 12-month period), results of daily zero/span calibration checks, results of quarterly cylinder gas audits or relative accuracy audits, and magnitude of manual calibration adjustments.

A statement of certification of the existing continuous SO₂ monitoring system shall be maintained on site and shall consist of a letter from the Ohio EPA detailing the results of an Agency review of the certification tests and a statement by the Agency that the system is considered certified in accordance with the requirements of 40 CFR Part 60, Appendix B, Performance Specification Test 2. Proof of certification shall be made available to the Director (the Ohio EPA, Southeast District Office) upon request.

Within 180 days of the effective date of this permit, the permittee shall develop a written quality assurance/quality control plan for the continuous SO₂ monitoring system designed to ensure continuous valid and representative readings of SO₂ emissions in units of the applicable standards. The plan shall follow the requirements of 40 CFR Part 60, Appendix F. The quality assurance/quality control plan and a logbook documenting the activities related to the continuous SO₂ monitoring system must be kept on site and available for inspection during regular office hours.

The permittee is still required to provide the relative accuracy audit results in units of the applicable standard(s), in accordance with 40 CFR Part 60.

7. The F-factor for clean blast furnace gas shall be calculated on an hourly basis in accordance with equation 19-13 of 40 CFR Part 60, Appendix A, Method 19. The hourly calculations shall be based upon the clean blast furnace gas constituent concentrations as measured by Wheeling-Pittsburgh Steel, the calculated clean blast furnace gas density, and the clean blast furnace gas and natural gas flow rates and stack oxygen concentrations measured by the permittee. If the permittee demonstrates to the satisfaction of the Ohio EPA that a reasonably accurate default F-factor for clean blast furnace gas may be calculated using worst-case assumptions, the permittee may submit a written request to the Ohio EPA to discontinue hourly calculations of the F-factor. The F-factor for natural gas shall be based upon the data from Table 19-1 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be calculated in accordance with equation 19-16 of 40 CFR Part 60, Appendix A, Method 19. The combined F-factor for natural gas and clean blast furnace gas shall be used in conjunction with the NO_x and SO₂ continuous monitoring systems data to determine the NO_x and SO₂ emission rates.
8. The permittee shall operate and maintain equipment to continuously monitor and record the percent oxygen in the stack serving this emissions unit when the emissions unit is in operation. Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60. The monitoring and recording equipment shall be installed, calibrated, operated and maintained in accordance with the manufacturer's recommendations, with any modifications deemed necessary by the permittee.

III. Monitoring and/or Record Keeping Requirements (continued)

9. Petition for Discontinued Use of the SO₂ Monitoring System

The permittee may petition the Director of the Ohio EPA for permission to discontinue the use of the SO₂ monitoring system if all of the following conditions are met:

- a. Ohio EPA has determined that the system meets all requirements of ORC section 3704.03(l) and 40 CFR Part 60, Appendix B, Performance Specification 2; and
- b. the SO₂ monitoring system has collected at least 180 days of valid data (after the certification of the monitoring system is completed) during which this emissions unit was operating with clean blast furnace gas as fuel; and
- c. the permittee has developed an accurate, representative SO₂ emission factor for SO₂ emissions during the use of blast furnace gas as fuel by using the SO₂ monitoring system data and has developed justification concerning why the emission factor should be used as an alternative to the SO₂ monitoring system for calculating SO₂ emissions.

The petition to the Director shall include documentation to demonstrate that the above conditions have been met.

IV. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than natural gas or clean blast furnace gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.
2. The permittee shall submit semiannual written reports that (a) identify all days during which any visible particulate emissions were observed from the stack serving this emissions unit and (b) describe any corrective actions taken to eliminate the visible particulate emissions. These reports shall be submitted to the Ohio EPA, Southeast District Office by February 15 and August 15 of each year and shall cover the previous 6-month period.
3. The permittee shall submit quarterly deviation (excursion) reports that identify the following:
 - a. each month during which the rolling, 12-month total natural gas usage exceeds 3,062 MMCF, and the actual total monthly usage rate for each such month;
 - b. each month during which the rolling, 12-month total clean blast furnace gas usage exceeds 46,338 MMCF, and the actual total monthly usage rate for each such month; and
 - c. all exceedances of the rolling, 12-month PM/PM₁₀, CO, VOC, and SO₂* emission limitations.

* Any exceedances of the rolling, 12-month SO₂ emission limitation will initially be reported in accordance with section A.IV.5 below. If the use of the continuous SO₂ monitoring system is discontinued, the permittee shall identify any exceedances of the rolling, 12-month SO₂ emission limitation in accordance with this term.

The quarterly reports shall be submitted in accordance with Part 1 - General Term and Condition A.1.c.ii of this permit.

IV. Reporting Requirements (continued)

4. The permittee shall submit reports within 30 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of NO_x values in excess of the limitations specified in the terms and conditions of this permit. These reports shall also contain the total NO_x emissions (in tons) for each rolling, 12-month period during the calendar quarter.

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

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of 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.

5. The permittee shall submit reports within 30 or 31 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting the date, commencement and completion times, duration, magnitude, reason (if known), and corrective actions taken (if any), of all instances of SO₂ values in excess of the limitations specified in the terms and conditions of this permit. These reports shall also contain the total SO₂ emissions (in tons) for each rolling, 12-month period during the calendar quarter.

The permittee shall submit reports within 30 or 31 days following the end of each calendar quarter to the Ohio EPA, Southeast District Office documenting any continuous SO₂ monitoring system downtime while the emissions unit was on line (date, time, duration and reason) along with any corrective action(s) taken. The permittee shall provide the emissions unit operating time during the reporting period and the date, time, reason and corrective action(s) taken for each time period of emissions unit and control equipment malfunctions. The total operating time of the emissions unit and the total operating time of the analyzer while the emissions unit was on line shall also be included in the quarterly report.

If there are no excess emissions during the calendar quarter, the permittee shall submit a statement to that effect along with the date, time, reason, and corrective action(s) taken for each time period of 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 or 31, April 30 or May 1, July 30 or 31, and October 30 or 31 of each year and shall address the data obtained during the previous calendar quarter.

6. The permittee shall also submit annual reports that specify the total PM/PM₁₀, NO_x, CO, VOC, and SO₂ emissions from this emissions unit for the previous calendar year. The reports shall be submitted by April 15 of each year. This reporting requirement may be satisfied by including and identifying the specific emission data for this emissions unit in the annual Fee Emission Report.

V. Testing Requirements

1. Compliance with the emission limitations in section A.I.1 of these terms and conditions shall be determined in accordance with the following methods:

V. Testing Requirements (continued)

1.a Emission Limitation:

Visible particulate emissions from any stack shall not exceed 20% opacity as a 6-minute average, except as provided by the rule.

Applicable Compliance Method:

Compliance shall be demonstrated based upon visible particulate emission observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9 and the procedures specified in OAC rule 3745-17-03(B)(1).

1.b Emission Limitation:

PM/PM10 emissions shall not exceed 0.004 lb/MMBtu when only burning natural gas.

Applicable Compliance Method:

This emission limitation has been established based upon manufacturer's data for natural gas combustion.

If required, the permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2 while burning only natural gas.

1.c Emission Limitation:

PM/PM10 emissions shall not exceed 0.0145 lb/MMBtu when burning a blend of natural gas and clean blast furnace gas.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $0.0151 \times 0.95 + 0.004 \times 0.05 = 0.0145$ lb/MMBtu

The permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

1.d Emission Limitation:

PM/PM10 emissions shall not exceed 11.4 tons/year.

Applicable Compliance Method:

This emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with this emission limitation will also be demonstrated.

1.e Emission Limitation:

PM/PM10 emissions shall not exceed 2.6 lbs/hr.

Applicable Compliance Method:

This emission limitation has been established based upon a manufacturer's performance guarantee. The worst-case emission condition is the combustion of 95% clean blast furnace gas (0.0151 lb/MMBtu) and 5% natural gas (0.004 lb/MMBtu). $180 \times [(0.0151 \times 0.95 + 0.004 \times 0.05)] = 2.6$ lbs/hr.

The permittee shall demonstrate compliance with this emission limitation through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.f Emission Limitations:

VOC emissions shall not exceed 1.0 lb/hr.
VOC emissions shall not exceed 4.38 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established by multiplying the maximum gas burning capacity of the emissions unit by the AP-42 emission factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998).

$180 \text{ MMBtu/hr} \times 5.5 \text{ lbs/MMCF} / 1000 \text{ MMBtu/MMCF} = 1.0 \text{ lb/hr.}$

If required, the permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

$1.0 \text{ lb/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 4.38 \text{ tons/year.}$

1.g Emission Limitations:

NOx emissions shall not exceed 0.20 lb/MMBtu as a 3-hour average when burning natural gas or a blend of natural gas and clean blast furnace gas.
NOx emissions shall not exceed 36.0 lbs/hr as a 3-hour average.
NOx emissions shall not exceed 157.7 tons/year.

Applicable Compliance Methods:

The lb/MMBtu NOx emission limitation has been established based upon a manufacturer's performance guarantee. The lb/hr emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity and is based on the worst case emission condition of 100% natural gas. ($0.20 \times 180 = 36.0$)

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton.

$36 \text{ lbs/hr} \times 8760 \text{ hr/year} \times 1 \text{ ton}/2000 \text{ lbs} = 157.7 \text{ tons/year.}$

Compliance with these emission limitations shall be demonstrated based upon the records required pursuant to section A.III.

The permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

V. Testing Requirements (continued)

1.h Emission Limitations:

CO emissions shall not exceed 0.045 lb/MMBtu when burning natural gas or a blend of natural gas and clean blast furnace gas.

CO emissions shall not exceed 8.1 lbs/hr.

CO emissions shall not exceed 35.5 tons/year.

Applicable Compliance Methods:

The lb/MMBtu emission limitation has been established based upon a manufacturer's performance guarantee for both natural gas and clean blast furnace gas. The hourly emission limitation has been established by multiplying the lb/MMBtu emission limitation by the emissions unit's maximum heat input capacity of 180 MMBtu/hr.

The permittee shall demonstrate compliance with the lb/MMBtu and hourly emission limitations through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

1.i Emission Limitations:

SO₂ emissions shall not exceed 45.7 lbs/hr.

SO₂ emissions shall not exceed 200.2 tons/year.

Applicable Compliance Methods:

The hourly emission limitation has been established based upon the results of emission testing conducted on this emissions unit in July, 1999.

Compliance shall initially be demonstrated based upon the records required pursuant to section A.III.6. If the use of the continuous SO₂ monitoring system is discontinued pursuant to section A.III.9 of this permit, the permittee may demonstrate compliance with the hourly emission limitation through the use of the approved SO₂ emission factor and the records required pursuant to section A.III.

The permittee shall demonstrate compliance with the hourly emission limitation through the emission testing methods and procedures specified in section A.V.2.

The annual emission limitation was established by multiplying the hourly emission limitation by 8760 hours/yr and dividing by 2000 lbs/ton. Therefore, provided that the permittee complies with the hourly emission limitation, compliance with the annual emission limitation will also be demonstrated.

V. Testing Requirements (continued)

1.j Emission Limitation:

NO_x emissions shall not exceed 403.6 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by using the maximum annual heat input rate for emissions units B001 through B004, combined, the maximum heat input rate based upon the restricted natural gas usage rate, and NO_x emission factors for natural gas and clean blast furnace gas (0.2 lb/MMBtu and 0.06 lb/MMBtu, respectively) in accordance with the following equation:

$$((3,062,000 \text{ MMBtu/yr} \times 0.2 \text{ lb/MMBtu}) + (180 \text{ MMBtu/hr} \times 8760 \text{ hr/yr} \times 4 \text{ boilers} - 3,062,000 \text{ MMBtu/yr}) \times 0.06 \text{ lb/MMBtu}) / 2000 \text{ lbs/ton} = 403.6 \text{ tons/rolling, 12-month period.}$$

Compliance with this emission limitation shall be demonstrated based upon the records required pursuant to section A.III.

1.k Emission Limitation:

CO emissions shall not exceed 141.9 tons/rolling, 12-month period, for emissions units B001 through B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for CO of 0.045 lb CO/MMBtu. At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month CO emissions are 1,576,800 MMBtu/yr X 0.045 lb CO/MMBtu X 4 boilers/2000 lbs/ton = 141.9 tons CO/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.l Emission Limitation:

VOC emissions shall not exceed 8.4 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum allowable rolling 12-month natural gas usage rate for emissions units B001 through B004, combined, by the AP-42 factor of 5.5 lbs VOC/MMSCF (Table 1.4-2, July, 1998). 3,062 MMCF X 5.5 lbs VOC/MMCF X 1 ton/2000 lbs. The VOC emissions from the burning of clean blast furnace gas are considered to be negligible.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

V. Testing Requirements (continued)

1.m Emission Limitation:

PM/PM10 emissions shall not exceed 45.7 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established by multiplying the maximum annual heat input rate for emissions units B001 through B004, combined, by the emission factor for the combination of natural gas and clean blast furnace gas of 0.0145 lb PM/PM10/MMBtu (see A.V.1.c above). At a maximum 180 MMBtu/hr X 8760 hr/yr = 1,576,800 MMBtu/yr, total rolling, 12-month PM/PM10 emissions are 1,576,800 MMBtu/yr X 0.0145 lb PM/PM10/MMBtu X 4 boilers/2000 lbs/ton = 45.7 tons PM/PM10/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

1.n Emission Limitation:

SO₂ emissions shall not exceed 500.0 tons/rolling, 12-month period, for emissions units B001, B002, B003, and B004, combined.

Applicable Compliance Method:

This emission limitation has been established using the maximum allowable rolling, 12-month clean blast furnace gas usage rate for emissions units B001 through B004, combined, a clean blast furnace gas heat content of 85 Btu/CF, and an emission factor for clean blast furnace gas of 0.2539 lb SO₂/MMBtu (the emission factor is based upon the results of emission tests conducted in July, 1999). 3,938,730 MMBtu/rolling, 12-month period X 0.2539 lb SO₂/MMBtu/2000 lbs/ton = 500.0 tons SO₂/rolling, 12-month period.

Compliance with this emission limitation shall be based upon the records required pursuant to section A.III.

2. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted to demonstrate compliance with the short-term PM10 (the emission limitation when burning a blend of natural gas and clean blast furnace gas), NO_x, SO₂, and CO emission limitations and the visible particulate emission limitation.

b. The following test method(s) shall be employed to demonstrate compliance with the allowable mass emission rate(s):

for PM10, Methods 1 through 4 of 40 CFR Part 60, Appendix A, and Method 201 or 201A of 40 CFR Part 51, Appendix M;

for visible particulate emissions, Method 9 of 40 CFR 60 Appendix A;

for VOC, Methods 1 through 4 and Method 25 of 40 CFR 60 Appendix A;

for NO_x, Methods 1 through 4 and Method 7 of 40 CFR 60, Appendix A;

for SO₂, Methods 1 through 4 and Method 6 of 40 CFR 60, Appendix A; and

for CO, Methods 1 through 4 and Method 10 of 40 CFR 60 Appendix A.

Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

c. The test(s) shall be conducted while the emissions unit is operating at or near its maximum capacity, while burning a blend of natural gas and clean blast furnace gas, unless otherwise specified or approved by the Ohio EPA, Southeast District Office.

d. The emission tests shall be performed within 12 months of the effective date of this permit and within 6 months prior to permit expiration (except for the NO_x emission tests which will only be conducted for the initial compliance demonstration required by this permit). The emission test results for this emissions unit shall be representative of the emissions from emissions units B001, B002, and B003.

V. Testing Requirements (continued)

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, Southeast 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, Southeast District Office's refusal to accept the results of the emission test(s).

Personnel from the Ohio EPA, Southeast 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 emission test(s) shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, Southeast 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, Southeast District Office.

VI. Miscellaneous Requirements

None

B. State Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/ Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
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2. Additional Terms and Conditions

None

II. Operational Restrictions

None

III. Monitoring and/or Record Keeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None

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