

Synthetic Minor Determination and/or **Netting Determination**

Permit To Install: **02-22231**

A. Source Description

WCI Steel, Inc., has applied for a synthetic minor permit to install (PTI) for a 374.1 mmBtu/hr walking beam furnace fired with natural gas and/or coke oven gas at its facility located at 1040 Pine Avenue, SE, in Warren, Ohio. The proposed walking beam furnace will replace three (3) existing slab furnaces also fired with natural gas and/or coke oven gas. Based on calculated potential emissions without controls, the facility would be a major source of sulfur dioxide and subject to PSD review. However, see Section C below for limitations. The facility is located in Trumbull County.

B. Facility Emissions and Attainment Status

The facility is a major source of particulate material, sulfur dioxide, carbon monoxide, nitrogen oxides, and volatile organic compounds. Trumbull County is in attainment for particulate material, sulfur dioxide, carbon monoxide, nitrogen oxides, and volatile organic compounds.

C. Source Emissions

WCI Steel, Inc., has proposed limiting the amount of coke oven gas burned in this emissions unit to 2,553,540 mmBtu/year and the sulfur dioxide content in the coke oven gas burned in this emissions unit to 100 grains/100 dscf. With this federally enforceable limitation, net sulfur dioxide emissions from the proposed walking beam furnace will not exceed 40 tons/year and the facility will not be subject to the requirements of PSD review. Current, proposed, and net emissions are as follows:

Current emissions (tpy) from existing slab furnaces

	PM	PM10	SO2	NOx	CO	VOC
EUs: P001, P016, P017	25.84	22.58	172.79	351.77	78.67	5.14

Proposed emissions (tpy) from walking beam furnace to replace existing slab furnaces (P001, P016, P017)

	PM	PM10	SO2	NOx	CO	VOC
EU: P094	31.34	26.89	211.79	234.93	133.63	8.76

Net emissions (proposed - current) (tpy)

	PM	PM10	SO2	NOx	CO	VOC
EU: P094	5.50	4.31	39.00	-116.84	54.96	3.62
Threshold	25	15	40	40	100	40

D. Conclusion

By limiting the amount of coke oven gas burned in this emissions unit to 2,553,540 mmBtu/year and the sulfur dioxide content in the coke oven gas burned in this emission unit to 100 grains/100 dscf, net sulfur dioxide emission from the proposed walking beam furnace will not exceed 40 tons/year. Therefore, the facility will not be subject to the requirements of PSD review.



State of Ohio Environmental Protection Agency

**RE: DRAFT PERMIT TO INSTALL
TRUMBULL COUNTY**

CERTIFIED MAIL

Street Address:

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

Mailing Address:
Lazarus Gov.
Center

Application No: 02-22231

Fac ID: 0278000463

DATE: 11/2/2006

WCI Steel, Inc
Thomas Shepker
1040 Pine Ave SE
Warren, OH 44483

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

A Permit to Install may be issued in proposed or final form based on the draft action, any written public comments received within 30 days of the public notice, or record of a public meeting if one is held. You will be notified in writing of a scheduled public meeting. Upon issuance of a final Permit to Install a fee of **\$2250** will be due. Please do not submit any payment now.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469. If you have any questions about this draft permit, please contact the field office where you submitted your application, or Mike Ahern, Field Operations & Permit Section at (614) 644-3631.

Sincerely,

Michael W. Ahern

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

CC: USEPA

NEDO

Eastgate Dev. & Trans. Study

WV

PA



**PUBLIC NOTICE PUBLIC HEARING
OHIO ENVIRONMENTAL PROTECTION AGENCY
ISSUANCE OF DRAFT PERMIT TO INSTALL TO
WCI Steel, Inc.**

Public notice is hereby given that the Ohio Environmental Protection Agency (EPA) has issued, on November 2, 2006, draft action of Permit-to-Install (PTI) application number 02-22231 to WCI Steel, Inc. in Warren, Ohio. The draft permit proposes to allow the installation of a walking beam furnace to replace 3 existing slab furnaces at the facility located at 1040 Pine Avenue SE, Warren, Ohio 44483-6528.

A public hearing on the draft air permit will be held on Tuesday, December 5, 2006, at the Warren Township Administration Building, 3765 W. Market Street, Leavittsburg, Ohio 44430. The public hearing will commence at 3:30 p.m. to accept comments on the draft permit. A presiding officer will be present and may limit oral testimony to ensure that all parties are heard.

All interested persons are entitled to attend or be represented and give written or oral comments on the draft permit at the hearing. Written comments on the draft permit must be received by the close of business on Friday, December 8, 2006. Comments received after this date will not be considered to be a part of the official record. Written comments may be submitted at the hearing or sent to: Kristen Switzer, Ohio EPA Northeast District Office, 2110 E. Aurora Rd., Twinsburg, Ohio 44087.

Copies of the draft permit application and technical support information may be reviewed and/or copies made by first calling to make an appointment at the Ohio EPA Northeast District Office, located at the above address, telephone number (330) 963-1200.

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

**Permit To Install
Terms and Conditions**

**Issue Date: To be entered upon final issuance
Effective Date: To be entered upon final issuance**

DRAFT PERMIT TO INSTALL 02-22231

Application Number: 02-22231
Facility ID: 0278000463
Permit Fee: **To be entered upon final issuance**
Name of Facility: WCI Steel, Inc
Person to Contact: Thomas Shepker
Address: 1040 Pine Ave SE
Warren, OH 44483

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

**1040 Pine Ave SE
Howland Twp, Ohio**

Description of proposed emissions unit(s):

Walking Beam Furnace.

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

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Director

WCI Steel, Inc

Facility ID: 0278000463

PTI Application: 02-22231

Issued: To be entered upon final issuance

Part I - GENERAL TERMS AND CONDITIONS

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

1. Monitoring and Related Recordkeeping and Reporting Requirements

- a. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall maintain records that include the following, where applicable, for any required monitoring under this permit:
 - i. The date, place (as defined in the permit), and time of sampling or measurements.
 - ii. The date(s) analyses were performed.
 - iii. The company or entity that performed the analyses.
 - iv. The analytical techniques or methods used.
 - v. The results of such analyses.
 - vi. The operating conditions existing at the time of sampling or measurement.
- b. Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.
- c. Except as may otherwise be provided in the terms and conditions for a specific emissions unit, the permittee shall submit required reports in the following manner:
 - i. Reports of any required monitoring and/or recordkeeping of federally enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
 - ii. Quarterly written reports of (i) any deviations from federally enforceable emission limitations, operational restrictions, and control device operating parameter limitations, excluding deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06, that have been detected by the testing, monitoring and recordkeeping requirements specified in this permit, (ii) the probable cause of such deviations, and (iii) any corrective actions or preventive measures taken, shall be made to the appropriate Ohio EPA District Office or local air agency. The written

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reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. See B.9 below if no deviations occurred during the quarter.

- iii. Written reports, which identify any deviations from the federally enforceable monitoring, recordkeeping, and reporting requirements contained in this permit shall be submitted (i.e., postmarked) to the appropriate Ohio EPA District Office or local air agency every six months, by January 31 and July 31 of each year for the previous six calendar months. If no deviations occurred during a six-month period, the permittee shall submit a semi-annual report, which states that no deviations occurred during that period.
 - iv. If this permit is for an emissions unit located at a Title V facility, then each written report shall be signed by a responsible official certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- d. The permittee shall report actual emissions pursuant to OAC Chapter 3745-78 for the purpose of collecting Air Pollution Control Fees.

2. Scheduled Maintenance/Malfunction Reporting

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

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

3. Risk Management Plans

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

4. Title IV Provisions

If the permittee is subject to the requirements of 40 CFR Part 72 concerning acid rain,

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the permittee shall ensure that any affected emissions unit complies with those requirements. Emissions exceeding any allowances that are lawfully held under Title IV of the Act, or any regulations adopted thereunder, are prohibited.

5. Severability Clause

A determination that any term or condition of this permit is invalid shall not invalidate the force or effect of any other term or condition thereof, except to the extent that any other term or condition depends in whole or in part for its operation or implementation upon the term or condition declared invalid.

6. General Requirements

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

7. Fees

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

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permittee shall pay all applicable permit-to-operate fees within thirty days of the issuance of the invoice.

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8. Federal and State Enforceability

Only those terms and conditions designated in this permit as federally enforceable, that are required under the Act, or any its applicable requirements, including relevant provisions designed to limit the potential to emit of a source, are enforceable by the Administrator of the U.S. EPA and the State and by citizens (to the extent allowed by section 304 of the Act) under the Act. All other terms and conditions of this permit shall not be federally enforceable and shall be enforceable under State law only.

9. Compliance Requirements

- a. Any document (including reports) required to be submitted and required by a federally applicable requirement in this permit shall include a certification by a responsible official that, based on information and belief formed after reasonable inquiry, the statements in the document are true, accurate, and complete.
- b. Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Director of the Ohio EPA or an authorized representative of the Director to:
 - i. At reasonable times, enter upon the permittee's premises where a source is located or the emissions-related activity is conducted, or where records must be kept under the conditions of this permit.
 - ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit, subject to the protection from disclosure to the public of confidential information consistent with ORC section 3704.08.
 - iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.
 - iv. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit and applicable requirements.
- c. The permittee shall submit progress reports to the appropriate Ohio EPA District Office or local air agency concerning any schedule of compliance for meeting an applicable requirement. Progress reports shall be submitted semiannually, or more frequently if specified in the applicable requirement or by the Director of

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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.

10. Permit-To-Operate Application

- a. If the permittee is required to apply for a Title V permit pursuant to OAC Chapter 3745-77, the permittee shall submit a complete Title V permit application or a complete Title V permit modification application within twelve (12) months after commencing operation of the emissions units covered by this permit. However, if the proposed new or modified source(s) would be prohibited by the terms and conditions of an existing Title V permit, a Title V permit modification must be obtained before the operation of such new or modified source(s) pursuant to OAC rule 3745-77-04(D) and OAC rule 3745-77-08(C)(3)(d).
- b. If the permittee is required to apply for permit(s) pursuant to OAC Chapter 3745-35, the source(s) identified in this permit is (are) permitted to operate for a period of up to one year from the date the source(s) commenced operation. Permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the source(s) covered by this permit.

11. Best Available Technology

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

12. 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.

13. Permit-To-Install

A permit-to-install must be obtained pursuant to OAC Chapter 3745-31 prior to "installation" of "any air contaminant source" as defined in OAC rule 3745-31-01, or "modification", as defined in OAC rule 3745-31-01, of any emissions unit included in

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this permit.**

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

1. Compliance Requirements

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

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping of state-only enforceable information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from state-only required emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted (i.e., postmarked) quarterly, by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Permit Transfers

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

4. Authorization To Install or Modify

If applicable, authorization to install or modify any new or existing emissions unit included in this permit shall terminate within eighteen months of the effective date of the permit if the owner or operator has not undertaken a continuing program of

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installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

5. Construction of New Sources(s)

This permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. This permit does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the application and terms and conditions of this permit. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of this permit does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Issuance of this permit is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

6. Public Disclosure

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

7. Applicability

This Permit to Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate application must be made to the Director for the installation or modification of any other emissions unit(s).

8. Construction Compliance Certification

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

9. 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)

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

WCI Steel, Inc**Facility ID: 0278000463****PTI Application: 02-22231****Issued: To be entered upon final issuance****C. Permit-To-Install Summary of Allowable Emissions**

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

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

<u>Pollutant</u>	<u>Tons Per Year</u>
PM	31.34
PM10	26.89
SO2	211.79
NOx	234.93
CO	133.63
VOC	8.76

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Part II - FACILITY SPECIFIC TERMS AND CONDITIONS

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

None

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

None

Part III - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)**A. State and Federally Enforceable Section****I. Applicable Emissions Limitations and/or Control Requirements**

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

Operations, Property, and/or Equipment - (P094) - Walking beam furnace with maximum heat input capacity of 374.1 MMBtu/hr. Furnace is fired with natural gas and/or coke oven gas.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
OAC rule 3745-31-05(A)(3)	<p>Total particulate emissions shall not exceed 7.15 lbs/hr and 31.34 tons/yr.</p> <p>PM10 emissions shall not exceed 6.14 lbs/hr and 26.89 tons/yr.</p> <p>Sulfur dioxide emissions shall not exceed 1.7 lbs/mmBtu and 211.79 tons/yr.</p> <p>Nitrogen oxides emissions shall not exceed 53.64 lbs/hr and 234.93 tons/yr.</p> <p>Carbon monoxide emissions shall not exceed 30.51 lbs/hr and 133.63 tons/yr.</p> <p>Volatile organic compound emissions shall not exceed 2.00 lbs/hr and 8.76 tons/yr.</p> <p>Visible particulate emissions shall not exceed 5 percent opacity as a six-minute average.</p>
OAC rule 3475-31-05(C)	Sulfur dioxide emissions shall not exceed 211.79 tons per rolling, 12-month period. See A.I.2.b, A.II.2, and A.II.3 below.
OAC rule 3745-17-11	None. See A.I.2.a below.
OAC rule 3475-17-07(A)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).
OAC rule 3745-18-06(E)(1)	The emission limitation required by this applicable rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2. Additional Terms and Conditions

Emissions Unit ID: P041

- 2.a** The uncontrolled mass rate of particulate emissions from this emissions unit is less than 10 pounds per hour. Therefore, pursuant to OAC rule 3745-17-11(A)(2)(a)(ii), Figure II of OAC rule 3745-17-11 does not apply. In addition, Table I of OAC rule 3745-17-11 does not apply because the process weight, as defined in OAC rule 3745-17-01(B)(14), is equal to zero.
- 2.b** The facility is required to limit the amount of coke oven gas burned in this emissions unit to 2,553,540 mmBtu/year on a rolling, 12-month basis. This will ensure that sulfur dioxide emissions from burning coke oven gas and natural gas do not exceed 211.79 tons per rolling, 12-month period.

II. Operational Restrictions

1. The permittee shall burn only natural gas and/or coke oven gas as fuel in this emissions unit.
2. The permittee shall burn in this emissions unit only natural and coke oven gas with a concentration of H₂S less than 100 grains per 100 dry standard cubic feet (as an average for each rolling, 3-hour period), or a mixture of natural gas and coke oven gas with a concentration of H₂S less than 100 grains per 100 dry standard cubic feet (as an average for each rolling, 3-hour period), unless the permittee demonstrates through calculations that during periods when coke oven gas containing greater than 100 grains per 100 dry standard cubic feet is burned, sulfur dioxide emissions did not exceed 1.7 pounds per mmBtu and the rolling, 12-month sulfur dioxide emission rate did not exceed 211.79 tons per year.
3. To ensure enforceability during the first twelve months of operation following start-up, the permittee shall not exceed the following coke oven gas usage limitations for this emissions unit on a rolling, monthly basis:

Month	Coke Oven Gas Usage in mmBtu/month
1	212,795
2	425,590
3	638,385
4	851,180
5	1,063,975
6	1,276,770
7	1,489,565
8	1,702,360
9	1,915,155
10	2,127,950
11	2,340,745
12	2,553,540

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After the first twelve months of operation following start-up, the permittee shall restrict coke oven gas usage to 2,553,540 mmBtu per year, based upon a rolling, 12-month summation.

III. Monitoring and/or Recordkeeping Requirements

1. For each day during which the permittee burns a fuel other than natural gas, coke oven gas, or a mixture of natural gas and coke oven gas the permittee shall maintain a record of the type, quantity, and quality of fuel burned in this emissions unit.
2. The permittee shall continuously monitor and record the sulfur content of the coke oven gas burned in this emissions unit to ensure that the concentration of sulfur compounds is less than 100 grains per 100 dry standard cubic feet (as an average for each rolling, 3-hour period). Such continuous monitoring and recording equipment shall comply with the requirements specified in 40 CFR Part 60.13.

The permittee shall maintain records of all data obtained by the continuous sulfur dioxide and total reduced sulfur monitoring systems including, but not limited to, the grains of hydrogen sulfide per 100 dry standard cubic feet (dscf) for the coke oven gas on a daily average basis, based upon the average emission rate for the actual hours of operation for this emissions unit during each calendar day.

In lieu of the above requirement, the permittee may accept the coke oven gas supplier's monitoring and record keeping for sulfur content in the coke oven gas if said monitoring and record keeping meets the requirements of 40 CFR Part 60.13.

3. The permittee shall maintain records of the following information:
 - a. the quantity of coke oven gas burned in this emissions unit for each month;
 - b. during the first twelve months of operation following start-up, the cumulative coke oven gas usage for each month; and
 - c. beginning after the first twelve months following start-up, the rolling, 12-month summation of coke oven gas usage.

IV. Reporting Requirements

1. The permittee shall submit quarterly deviation (excursion) reports that identify each day when a fuel other than natural gas and/or coke oven gas was burned in this emissions unit.

Emissions Unit ID: P041

2. The permittee shall submit quarterly deviation (excursion) reports that identify each rolling, 3-hour period during which the concentration of H₂S in the coke oven gas burned in this emissions unit exceeded 100 grains per 100 dscf, and the actual H₂S content for each such 3-hour period. For each 3-hour period that exceeds 100 grains per 100 dscf, the permittee may provide calculations that demonstrate that during that 3-hour period the sulfur dioxide emission rate did not exceed 1.7 pounds per mmBtu and the rolling, 12-month sulfur dioxide emission rate did not exceed 211.79 tons per year. If the permittee makes this demonstration for any 3-hour period, the exceedance of the 100 grains per 100 dscf limitation shall not be considered a deviation of the operational restriction in section A.II.2.
3. The permittee shall submit quarterly deviation (excursion) reports that identify all exceedances of the rolling, 12-month coke oven gas usage and, for the first twelve months following start-up, all exceedances of the allowable cumulative coke oven gas usage for this emissions unit in section A.II.3 of these terms and conditions.

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:

Total particulate emissions shall not exceed 7.15 lbs/hr.

Applicable Compliance Method:

- i. To determine the particulate emission rate from burning natural gas, the following equation shall be used:

$$E \text{ (lb/hr)} = (7.6 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/1030 \text{ Btu}) \times (374.1 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 2.76 \text{ lbs/hr}$$

where:

E = particulate emission rate from burning natural gas, in lb/hr;

7.6 lbs/10⁶ scf = emission factor for total particulate material from burning natural gas from AP 42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98;

1 cf/1030 Btu = the heat value of 1 cf of natural gas; and

374.1 mmBtu/hr = the maximum heat input per hour burning natural gas in this emissions unit.

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- ii. To determine the particulate emission rate from burning coke oven gas, the following equation shall be used:

$$E \text{ (lb/hr)} = (11.9 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/530 \text{ Btu}) \times (291.5 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 6.55 \text{ lbs/hr}$$

where:

E = particulate emission rate from coke oven gas, in lb/hr;

11.9 lbs/10⁶ scf = emission factor for total particulate material from coke oven gas from the 2006 FIRE Database;

1 cf/530 Btu = the heat value of 1 cf of coke oven gas; and

291.5 mmBtu/hr = the maximum available heat input per hour burning coke oven gas in this emissions unit.

1.b Emission Limitation:

Total particulate emissions shall not exceed 31.34 tons/yr.

Applicable Compliance Method:

The annual total particulate emission limitation while burning natural gas and/or coke oven gas was developed by multiplying the short-term allowable total particulate emission limitation (7.15 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

1.c Emission Limitation:

PM10 emissions shall not exceed 6.14 lbs/hr.

Applicable Compliance Method:

- i. To determine the PM10 emission rate from burning natural gas, the following equation shall be used:

$$E \text{ (lb/hr)} = (7.6 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/1030 \text{ Btu}) \times (374.1 \text{ mmBtu/hr}) \times (1,000,000$$

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$\text{Btu/mmBtu}) = 2.76 \text{ lbs/hr}$

where:

$E = \text{PM10 emission rate from burning natural gas, in lb/hr;}$

$7.6 \text{ lbs}/10^6 \text{ scf} = \text{emission factor for total particulate material from burning natural gas from AP 42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98;}$

$1 \text{ cf}/1030 \text{ Btu} = \text{the heat value of 1 cf of natural gas; and}$

$374.1 \text{ mmBtu/hr} = \text{the maximum heat input per hour burning natural gas in this emissions unit.}$

- ii. To determine the PM10 emission rate from burning coke oven gas, the following equation shall be used:

$$E \text{ (lb/hr)} = (10.05 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/530 \text{ Btu}) \times (291.5 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 5.53 \text{ lbs/hr}$$

where:

$E = \text{particulate emission rate from coke oven gas, in lb/hr;}$

$10.05 \text{ lbs}/10^6 \text{ scf} = \text{emission factor for PM10 from coke oven gas from the 2006 FIRE Database;}$

$1 \text{ cf}/530 \text{ Btu} = \text{the heat value of 1 cf of coke oven gas; and}$

$291.5 \text{ mmBtu/hr} = \text{the maximum available heat input per hour burning coke oven gas in this emissions unit.}$

1.d Emission Limitation:

PM10 emissions shall not exceed 26.89 tons/yr.

Applicable Compliance Method:

The annual PM10 emission limitation while burning natural gas and/or coke oven gas was developed by multiplying the short-term allowable PM10 emission limitation (6.14 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

1.e Emission Limitation:

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Sulfur dioxide emissions shall not exceed 1.7 lbs/mmBtu.

Applicable Compliance Method:

- i. To determine the sulfur dioxide emission rate from burning natural gas, the following equation shall be used:

$$E \text{ (lb/mmBtu)} = (0.6 \text{ lb}/10^6 \text{ scf}) \times (1 \text{ cf}/1030 \text{ Btu}) \times (1,000,000 \text{ Btu/mmBtu}) = 0.0006 \text{ lb/mmBtu}$$

where:

E = sulfur dioxide emission rate from burning natural gas, in lb/mmBtu;

0.6 lb/10⁶ scf = emission factor for sulfur dioxide from burning natural gas from AP 42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98; and

1 cf/1030 Btu = the heat value of 1 cf of natural gas.

- ii. To determine the actual sulfur dioxide emission rate from burning coke oven gas, the following equation shall be used:

$$E \text{ (lb/mmBtu)} = (\text{H}_2\text{S content}) \times (1 \text{ lb}/7000 \text{ grains}) \times (1 \text{ scf}/530 \text{ Btu}) \times (64 \text{ SO}_2/34 \text{ H}_2\text{S}) \times (1,000,000 \text{ Btu/mmBtu})$$

where:

E = sulfur dioxide emission rate from burning coke oven gas, in lb/mmBtu;

H₂S content = grains of H₂S in 100 scf of coke oven gas recorded in section A.III.2;

1 lb/7000 grains = conversion from pounds to grains;

1 scf/530 Btu = the heat value of 1 scf of coke oven gas; and

64 SO₂/34 H₂S = the ratio of grams per mole of SO₂ to mole of H₂S.

1.f Emission Limitation:

Sulfur dioxide emissions shall not exceed 211.79 tons/yr.

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Applicable Compliance Method:

The annual sulfur dioxide emission limitation while burning natural gas and/or coke oven gas was developed by multiplying the hourly sulfur dioxide emission rate (48.34 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

1.g Emission Limitation:

Nitrogen oxides emissions shall not exceed 53.64 lbs/hr.

Applicable Compliance Method:

- i. To determine the nitrogen oxides emission rate from burning natural gas, the following equation shall be used:

$$E \text{ (lbs/hr)} = (0.12 \text{ lb/mmBtu}) \times (374.1 \text{ mmBtu/hr}) = 44.89 \text{ lbs/hr}$$

where:

E = nitrogen oxides emission rate from burning natural gas, in lbs/hr;

0.12 lb/mmBtu = furnace manufacturer's emission factor for nitrogen oxides when burning natural gas; and

374.1 mmBtu/hr = the maximum heat input for this emission unit.

- ii. To determine the nitrogen oxides emission rate from burning coke oven gas, the following equation shall be used:

$$E \text{ (lbs/hr)} = (0.15 \text{ lb/mmBtu}) \times (291.5 \text{ mmBtu/hr}) = 43.73 \text{ lbs/hr}$$

where:

E = nitrogen oxides emission rate from burning coke oven gas, in lbs/hr;

0.15 lb/mmBtu = furnace manufacturer's emission factor for nitrogen oxides when burning coke oven gas; and

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291.5 mmBtu/hr = the maximum available heat input per hour burning coke oven gas in this emissions unit.

1.h Emission Limitation:

Nitrogen oxides emissions shall not exceed 234.93 tons/yr.

Applicable Compliance Method:

The annual nitrogen oxides emission limitation while burning natural gas and/or coke oven gas was developed by multiplying the short-term allowable nitrogen oxides emission limitation (53.64 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

1.i Emission Limitation:

Carbon monoxide emissions shall not exceed 30.51 lbs/hr.

Applicable Compliance Method:

- i. To determine the carbon monoxide emission rate from burning natural gas, the following equation shall be used:

$$E \text{ (lbs/hr)} = (84 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/1030 \text{ Btu}) \times (374.1 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 30.51 \text{ lbs/hr}$$

where:

E = CO emission rate from burning natural gas, in lbs/hr;

84 lbs/10⁶ scf = emission factor for total particulate material from burning natural gas from AP 42, Section 1.4 Natural Gas Combustion, Table 1.4-1, 7/98;

1 cf/1030 Btu = the heat value of 1 cf of natural gas; and

374.1 mmBtu/hr = the maximum heat input per hour burning natural gas in this emissions unit.

- ii. To determine the CO emission rate from burning coke oven gas, the following equation shall be used:

$$E \text{ (lbs/hr)} = (18.4 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/530 \text{ Btu}) \times (291.5 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 10.12 \text{ lbs/hr}$$

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where:

E = CO emission rate from coke oven gas, in lbs/hr;

18.4 lbs/10⁶ scf = emission factor for CO from coke oven gas from NAPAP 1990 Emission Inv. Table 1;

1 cf/530 Btu = the heat value of 1 cf of coke oven gas; and

291.5 mmBtu/hr = the maximum available heat input per hour burning coke oven gas in this emissions unit.

1.j Emission Limitation:

Carbon monoxide emissions shall not exceed 133.63 tons/yr.

Applicable Compliance Method:

The annual carbon monoxide emission limitation while burning natural gas and/or coke oven gas was developed by multiplying the short-term allowable carbon monoxide emission limitation (30.51 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

1.k Emission Limitation:

Volatile organic compound emissions shall not exceed 2.00 lbs/hr.

Applicable Compliance Method:

i. To determine the VOC emission rate from burning natural gas, the following equation shall be used:

$$E \text{ (lbs/hr)} = (5.5 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/1030 \text{ Btu}) \times (374.1 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 2.00 \text{ lbs/hr}$$

where:

E = VOC emission rate from burning natural gas, in lbs/hr;

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5.5 lbs/10⁶ scf = emission factor for VOC from burning natural gas from AP 42, Section 1.4 Natural Gas Combustion, Table 1.4-2, 7/98;

1 cf/1030 Btu = the heat value of 1 cf of natural gas; and

374.1 mmBtu/hr = the maximum heat input per hour burning natural gas in this emissions unit.

- ii. To determine the VOC emission rate from burning coke oven gas, the following equation shall be used:

$$E \text{ (lb/hr)} = (1.2 \text{ lbs}/10^6 \text{ scf}) \times (1 \text{ cf}/530 \text{ Btu}) \times (291.5 \text{ mmBtu/hr}) \times (1,000,000 \text{ Btu/mmBtu}) = 0.66 \text{ lb/hr}$$

where:

E = VOC emission rate from coke oven gas, in lb/hr;

1.2 lbs/10⁶ scf = emission factor for VOC from coke oven gas from NAPAP 1990 Emission Inv. Table 1;

1 cf/530 Btu = the heat value of 1 cf of coke oven gas; and

291.5 mmBtu/hr = the maximum available heat input per hour burning coke oven gas in this emissions unit.

1.l Emission Limitation:

Volatile organic compound emissions shall not exceed 8.76 tons/yr.

Applicable Compliance Method:

The annual volatile organic compound emission limitation while burning natural gas and/or coke oven gas was developed by multiplying the short-term allowable volatile organic compound emission limitation (2.00 lbs/hr) by the maximum annual hours of operation (8,760 hours), and then dividing by 2,000 lbs per ton. Therefore, if compliance is shown with the short-term allowable emission limitation, compliance shall also be shown with the annual emission limitation.

1.m Emission Limitation:

Visible particulate emissions shall not exceed 5 percent opacity as a six-minute average.

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Applicable Compliance Method:

If required, the permittee shall demonstrate compliance with the visible emission limitation through visible emissions observations performed in accordance with 40 CFR Part 60, Appendix A, Method 9.

VI. Miscellaneous Requirements

None

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B. State Only Enforceable Section

I. Applicable Emissions Limitations and/or Control Requirements

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

Operations, Property, and/or Equipment - (P094) - Walking beam furnace with maximum heat input capacity of 374.1 MMBtu/hr. Furnace is fired with natural gas and/or coke oven gas.

Applicable Rules/Requirements	Applicable Emissions Limitations/Control Measures
None	None

2. **Additional Terms and Conditions**

None

II. Operational Restrictions

None

III. Monitoring and/or Recordkeeping Requirements

None

IV. Reporting Requirements

None

V. Testing Requirements

None

VI. Miscellaneous Requirements

None