



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: July 18, 2012

RE: ArcelorMittal USA, Inc. / 089-31704-00316

FROM: Matthew Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

## Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER-AM.dot12/3/07



## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

July 18, 2012

Mr. Brian Wolters  
ArcelorMittal USA, Inc.  
3001 Dickey Road, Station 001  
East Chicago, Indiana 46312

Re: 089-31704-00316  
Administrative Amendment to:  
Part 70 Operating Permit T089-6577-00316

Dear Mr. Wolters:

ArcelorMittal USA, Inc. was issued Part 70 Operating Permit T089-6577-00318 on September 12, 2006 for an integrated steel mill and finishing facility. An application to amend the Part 70 Operating Permit was received on April 9, 2012. Pursuant to 326 IAC 2-7-11, an Administrative Amendment to this permit is hereby approved.

The amendment includes an update to the netting analysis for the Boiler 504 project, originally evaluated under Significant Source Modification No. 089-29817-00316 issued on September 3, 2010.

All other conditions of the permit shall remain unchanged and in effect. Please find a copy of the revised Part 70 permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Madhurima Moulik, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Madhurima Moulik or extension (3-0868), or dial (317) 233-0868.

Sincerely,

Chrystal Wagner, Section Chief  
Permits Branch  
Office of Air Quality

Attachments  
MDM

CC: Lake County  
Lake County Health Department  
Compliance and Enforcement Branch



**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

**PART 70 OPERATING PERMIT  
OFFICE OF AIR QUALITY**

**ArcelorMittal USA, Inc.  
3210 Watling Street  
East Chicago, Indiana 46312**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

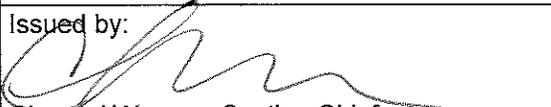
This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T089-6577-00316

Original signed by: Nisha Sizemore, Branch Chief Office of Air Quality	Issuance Date: September 12, 2006  Expiration Date: September 12, 2011
--	--

First Administrative Amendment No.: 089-23628-00316, issued November 1, 2006  
 First Significant Permit Modification No.: 089-23470-00316, issued January 22, 2007  
 Second Significant Permit Modification No.: 089-25725-00316, issued July 9, 2008  
 Second Administrative Amendment No.: 089-26796-00316, issued August 20, 2008  
 Third Significant Permit Modification No.: 089-22044-00316, issued November 3, 2008  
 Fourth Significant Permit Modification No.: 089-18491-00316, issued on May 26, 2010  
 Fifth Significant Permit Modification No.: 089-28972-00316, issued on November 4, 2010

Third Administrative Amendment No.: 089-31704-00316

Issued by:  Chrystal Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 18, 2012
--	------------------------------

## TABLE OF CONTENTS

### A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]
- A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]
- A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
[326 IAC 2-7-5(15)]
- A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]
- A.5 Fugitive Dust Sources
- A.6 Part 70 Permit Applicability [326 IAC 2-7-2]

### B GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-7-1]
- B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][13-15-3-6(a)]
- B.3 Enforceability [326 IAC 2-7-7]
- B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]
- B.5 Severability [326 IAC 2-7-5(5)]
- B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]
- B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]
- B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]
- B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]
- B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1), (3) and (13)][326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]
- B.11 Emergency Provisions [326 IAC 2-7-16]
- B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]
- B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]
- B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]
- B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination  
[326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]
- B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4]
- B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]
- B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)]  
[326 IAC 2-7-12 (b)(2)]
- B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]
- B.20 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2][326 IAC 2-3-2]
- B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-2]
- B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]
- B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]
- B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]
- B.25 Term of Condition [326 IAC 2-1.1-9.5]

### C SOURCE OPERATION CONDITIONS

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

- C.1 Opacity [326 IAC 5-1]
- C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]
- C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]
- C.4 Fugitive Dust Emissions [326 IAC 6-4]
- C.5 Stack Height [326 IAC 1-7]
- C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

#### Testing Requirements [326 IAC 2-7-6(1)]

- C.7 Performance Testing [326 IAC 3-6]

#### Compliance Requirements [326 IAC 2-1.1-11]

- C.8 Compliance Requirements [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

- C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
- C.10 Continuous Compliance Plan [326 IAC 6.8-8-1] [326 IAC 6.8-8-8)]
- C.11 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]
- C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

- C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]
- C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]
- C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)] [326 IAC 2-7-5(7)] [326 IAC 2-7-19(c)] [326 IAC 2-6]
- C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]
- C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

**Stratospheric Ozone Protection**

- C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

**D.0 FACILITY OPERATION CONDITIONS-No.7 Blast Furnace operation modification project**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.0.1 Non-applicability of Major Modification [326 IAC 2-2-1 (x)]
- D.0.2 Non-applicability of Major Modification [326 IAC 2-3-1 (s)]
- D.0.3 Volatile Organic Compounds (VOC)– non-applicability of De-minimis [326 IAC 2 3-1 (l)]
- D.0.4 Carbon Monoxide (CO)– Air quality impacts and increment consumption [326 IAC 2-2-4, 5 and 6]
- D.0.5 Emissions units subject to the emissions limitations [326 IAC 2-2-1 (x)] [326 IAC 2-3-1 (s)] [326 IAC 2-3-1 (l)] [326 IAC 2-2-4, 5 and 6]
- D.0.6 Operation Condition [326 IAC 2-2-3] [326 IAC 2-2-1 (x)] [326 IAC 2-3-1 (s)] [326 IAC 2-3-1 (l)] [326 IAC 2-2-4, 5 and 6]

**Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- D.0.7 Emissions Factors and Performance Testing

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.0.8 Record Keeping Requirements
- D.0.9 Reporting Requirements
- D.0.10 Permit Expiration Date [326 IAC 2-2-8(a)(1)]

**D.1 FACILITY OPERATION CONDITIONS - No. 5 and 6 Blast Furnaces**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.1.1 Lake County PM10 emission requirements [326 IAC 6.8-2-17)]
- D.1.2 Particulate Matter (PM) [326 IAC 6.8-1-2]
- D.1.3 Sulfur Dioxide (SO<sub>2</sub>)[326 IAC 7-4.1-11]

**Compliance Determination Requirements**

- D.1.4 Particulate Control [326 IAC 2-7-6(6)]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- D.1.5 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.1.6 Record Keeping Requirements
- D.1.7 Reporting Requirements

**D.2 FACILITY OPERATION CONDITIONS - No. 7 Blast Furnace**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.2.1 Lake County PM10 emission requirements [326 IAC 6.8-2-17]
- D.2.2 Particulate Matter (PM) [326 IAC 6.8-1-2]
- D.2.3 Opacity [326 IAC 6.8-3]
- D.2.4 Opacity
- D.2.5 Particulate Matter (PM) [326 IAC 2-3]
- D.2.6 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]
- D.2.7 Operation Condition – Best Available Control Technology [326 IAC 2-2-3]
- D.2.8 Operation Restriction – Curtailment of slag pits operation [326 IAC 2-2][326 IAC 2-3]
- D.2.9 Operational Condition [326 IAC 2-2][326 IAC 2-3]
- D.2.10 No.7 Blast Furnace Specific Control Requirements [326 IAC 6.8-7-5]
- D.2.11 Carbon Monoxide [326 IAC 9-1-2(2)]
- D.2.12 Sulfur Dioxide [326 IAC 7-4.1-11]

**Compliance Determination Requirements**

- D.2.13 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1), (6)]
- D.2.14 Carbon Monoxide Emissions – Compliance Requirements [326 IAC 2-2-3]
- D.2.15 Particulate Control [326 IAC 2-7-6(6)]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

- D.2.16 Blast Furnace Gas Flare Monitoring [326 IAC 9-1-2][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
- D.2.17 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11 (b)]
- D.2.18 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2-3]
- D.2.19 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.2.20 Record Keeping Requirements
- D.2.21 Reporting Requirements

**D.3 FACILITY OPERATION CONDITIONS - Sinter Plant**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.3.1 Lake County PM Emission Requirements [326 IAC 6.8-2]
- D.3.2 Particulate Matter (PM) [326 IAC 6.8-10-3]
- D.3.3 Lake County Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-4.1-11]
- D.3.4 Sinter Plant Volatile Organic Compounds (VOCs) [326 IAC 8-13-3]

**Compliance Determination Requirements**

- D.3.5 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]
- D.3.6 Particulate Control [326 IAC 2-7-6(6)]
- D.3.7 Continuous Emissions Monitoring [326 IAC 8-13-8]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

- D.3.8 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11 (b)]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.3.9 Record Keeping Requirements
- D.3.10 Continuous Emission Monitoring - Record Keeping and Reporting [326 IAC 8-13]
- D.3.11 Reporting Requirements

#### **D.4 FACILITY OPERATION CONDITIONS - Pulverized Coal Injection (PCI)**

##### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.4.1 Lake County PM10 Emission Requirements [326 IAC 6.8-2]
- D.4.2 Particulate Matter (PM) [326 IAC 6.8-1-2]

##### **Compliance Determination Requirements**

- D.4.3 Particulate Control [326 IAC 2-7-6(6)]

---

##### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

- D.4.4 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
- D.4.5 Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

##### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.4.6 Record Keeping Requirements

#### **D.5 FACILITY OPERATION CONDITIONS - No. 2 Basic Oxygen Furnace (BOF) Shop**

##### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.5.1 Lake County PM Emission Requirements [326 IAC 6.8-2-17]
- D.5.2 Opacity [326 IAC 6.8-3]
- D.5.3 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]
- D.5.4 Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-4.1-11]
- D.5.5 Carbon Monoxide [326 IAC 9-1-2(2)]
- D.5.6 Operation restriction – shutdown of 2 A Blooming Mill and 21 inch Bar Mill [326 IAC 2-3][326 IAC 2-2]

##### **Compliance Determination Requirements**

- D.5.7 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]
- D.5.8 Particulate Control [326 IAC 2-7-6(6)]
- D.5.9 Particulate Matter (PM) and Carbon Monoxide (CO)

##### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

- D.5.10 No.2 BOF Flare Monitoring [326 IAC 9-1-2][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
- D.5.11 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11 (b)]

##### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.5.12 Record Keeping Requirements
- D.5.13 Reporting Requirements

#### **D.6 FACILITY OPERATION CONDITIONS - No. 4 Basic Oxygen Furnace (BOF)**

##### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.6.1 Lake County PM emission requirements [326 IAC 6.8-2-17]
- D.6.2 Opacity [326 IAC 6.8-3]
- D.6.3 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]
- D.6.4 Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-4.1-11]
- D.6.5 PM10 and PM2.5 PSD Credit Limits [326 IAC 2-2]

##### **Compliance Determination Requirements**

- D.6.6 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]
- D.6.7 Particulate Control [326 IAC 2-7-6(6)]

##### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

- D.6.8 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11 (b)]
- D.6.9 Visible Emissions Notations
- D.6.10 Baghouse Monitoring

D.6.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.6.12 Record Keeping Requirements

D.6.13 Reporting Requirements

**D.7 FACILITY OPERATION CONDITIONS - No. 1 Lime Plant**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.7.1 Lake County PM10 emission requirements [326 IAC 6.8-2-17]

D.7.2 Sulfur Dioxide [326 IAC 7-4.1-11]

**Compliance Determination Requirements**

D.7.3 Particulate Control [326 IAC 2-7-6(6)]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.7.4 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.7.5 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.7.6 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(d)]

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.7.7 Record Keeping Requirements

D.7.8 Reporting Requirements

**D.8 FACILITY OPERATION CONDITIONS - Electric Arc Furnace**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.8.1 Lake County PM10 emission requirements [326 IAC 6.8-2]

D.8.2 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

D.8.3 Opacity [326 IAC 6.8-3]

D.8.4 Sulfur Dioxide Emissions Limitations [326 IAC 2-2][326 IAC 2-3]

D.8.5 Sulfur Dioxide - Combustion Fuel Usage [326 IAC 2-2][326 IAC 2-3]

D.8.6 Sulfur Dioxide [326 IAC 7-4.1-11]

D.8.7 Ladle Preheater Limits [326 IAC 2-2][326 IAC 2-3]

D.8.8 Carbon Monoxide Emissions [326 IAC 2-2][326 IAC 2-3]

D.8.9 Prevention of Significant Deterioration and Emission Offset [326 IAC 2-2][326 IAC 2-3]

**Compliance Determination Requirements**

D.8.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

D.8.11 Particulate and Sulfur Dioxide (SO<sub>2</sub>) Controls [326 IAC 2-7-6(6)]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.8.12 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.8.13 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.8.14 Wet Gas Scrubber Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

D.8.15 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(d)]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.8.16 Record Keeping Requirements

D.8.17 Reporting Requirements

**D.9 FACILITY OPERATION CONDITIONS - 80" Hot Strip Mill**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.9.1 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

D.9.2 Walking Beam Furnace Limitations [326 IAC 2-2][326 IAC 2-3]

D.9.3 Fuel Usage Limit [326 IAC 2-2]

D.9.4 Sulfur Dioxide [326 IAC 2-2]

D.9.5 PSD and Emissions Offset Credit Limits [326 IAC 2-2 and 326 IAC 2-3]

**Compliance Determination Requirements**

D.9.6 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.9.7 Record Keeping Requirements

D.9.8 Reporting Requirements

**D.10 FACILITY OPERATION CONDITIONS - 12" Bar Mill**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.10.1 Particulate Matter [326 IAC 6.8-2-6]

D.10.2 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

D.10.3 Sulfur Dioxide [326 IAC 7-4.1-1]

**Compliance Determination Requirements**

D.10.4 Particulate Control [326 IAC 2-7-6(6)]

**D.11 FACILITY OPERATION CONDITIONS - No. 3 Cold Strip Mill**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.11.4 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

**D.12 FACILITY OPERATION CONDITIONS - Coated Products**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.12.1 Particulate Matter [326 IAC 6.8-6]

D.12.2 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

D.12.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4.1-1]

D.12.4 Nitrogen Oxide (NO<sub>x</sub>) [326 IAC 2-2]

D.12.5 Emission Offsets [326 IAC 2-3]

D.12.6 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO PSD NSR Credit Limits [326 IAC 2-2]

**Compliance Determination Requirements**

D.12.7 Particulate Matter (PM)

**D.13 FACILITY OPERATION CONDITIONS - Utilities**

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

D.13.1 Particulate Matter [326 IAC 6.8-2]

D.13.2 Particulate Emission Limitations [326 IAC 6.8-1-2]

D.13.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4.1-11]

D.13.4 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

D.13.5 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO PSD and Nonattainment NSR Credit Limits  
[326 IAC 2-2] [326 IAC 2-1.1-5]

D.13.6 Equipment and Operational Specifications [326 IAC 2-2]

D.13.7 Operation Restriction – Shutdown of No.4 AC Station [326 IAC 2-2][326 IAC 2-3]

**Compliance Determination Requirements**

D.13.8 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1), (6)]

D.13.9 NO<sub>x</sub> Continuous Emission Rate Monitoring Requirement [326 IAC 3-5]

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.13.10 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(d)]

D.13.11 Maintenance of NO<sub>x</sub> CEMS [326 IAC 2-7-5(3)(A)(iii)]

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.13.12 Record Keeping Requirements

D.13.13 Reporting Requirements

#### **D.14 FACILITY OPERATION CONDITIONS - Shops**

##### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.14.1 Lake County PM10 emission requirements [326 IAC 6.8-2]
- D.14.2 Prevention of Significant Deterioration and Emission Offset [326 IAC 2-2][326 IAC 2-3]
- D.14.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4.1-11]

##### **Compliance Determination Requirements**

- D.14.4 Particulate Control [326 IAC 2-7-6(6)]

##### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

- D.14.5 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
- D.14.6 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
- D.14.7 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

##### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

- D.14.8 Record Keeping Requirements

#### **D.15 FACILITY OPERATION CONDITIONS - Storage Vessels**

##### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

- D.15.1 Record Keeping Requirements

#### **D.16 FACILITY OPERATION CONDITIONS - Insignificant Activities**

##### **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

- D.16.1 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]
- D.16.2 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]
- D.16.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.16.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

##### **Compliance Determination Requirement**

- D.16.5 Particulate Control

##### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

- D.16.6 Record Keeping Requirements
- D.16.7 Volatile Organic Compounds (VOC) [326 IAC 8-3-8] (Material requirements for cold cleaning degreasers)

#### **E.1 Clean Air Interstate Rule (CAIR) Nitrogen Oxides Annual, Sulfur Dioxide, and Nitrogen Oxides Ozone Season Trading Programs**

- E.1.1 Automatic Incorporation of Definitions [326 IAC 24-3-7(e)] [40 CFR 97.323(b)]
- E.1.2 Standard Permit Requirements [326 IAC 24-3-4(a)] [40 CFR 97.306(a)]
- E.1.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-3-4(b)] [40 CFR 97.306(b)]
- E.1.4 Nitrogen Oxides Emission Requirements [326 IAC 24-3-4(c)] [40 CFR 97.306(c)]
- E.1.5 Excess Emissions Requirements [326 IAC 24-3-4(d)] [40 CFR 97.306(d)]
- E.1.6 Record Keeping Requirements [326 IAC 24-3-4(e)] [326 IAC 2-7-5(3)] [40 CFR 97.306(e)]
- E.1.7 Reporting Requirements [326 IAC 24-3-4(e)] [40 CFR 97.306(e)]
- E.1.8 Liability [326 IAC 24-3-4(f)] [40 CFR 97.306(f)]
- E.1.9 Effect on Other Authorities [326 IAC 24-3-4(g)] [40 CFR 97.306(g)]
- E.1.10 CAIR Designated Representative and Alternate CAIR Designated Representative [326 IAC 24-3-6] [40 CFR 97, Subpart BBBB]

#### **E.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units**

- E.2.1 General Provisions Relating to NSPS [326 IAC 12-1-1] [40 CFR Part 60, Subpart A]
- E.2.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Db]

**F Fugitive Dust Sources**

- F.1 Fugitive Dust Emissions [326 IAC 6.8-10]

**G.1 Iron and Steel MACT**

- G.1.1 General Provisions Relating to HAPs [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]
- G.1.2 National Emission Standards for Hazardous Air Pollutants (HAPs): Integrated iron and Steel Manufacturing - Sinter Plants [40 CFR 63, Subpart FFFFF] [326 IAC 20-1]

**G.2 Coal Preparation Plants**

- G.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]
- G.2.2 New Source Performance Standards for Coal Preparation Plants [40 CFR 60, Subpart Y] [326 IAC 12]

**G.3 Lime Manufacturing Plants**

- G.3.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]
- G.3.2 National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants [40 CFR 63, Subpart AAAAA]

**G.4 Steel Pickling**

- G.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]
- G.4.2 National Emission Standards for Hazardous Air Pollutants for Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants [326 IAC 20-1-1] [40 CFR 63, Subpart CCC]

**G.5 Storage Vessels**

- G.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]
- G.5.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60, Subpart Kb] [326 IAC 12]

**Certification**  
**Emergency Occurrence Report**  
**Semi-Annual Natural Gas Fired Boiler Certification**  
**Quarterly Reports**  
**Quarterly Deviation and Compliance Monitoring Report**  
**Appendix A**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1, A.2, A.3, and A.4 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

---

The Permittee owns and operates a stationary Integrated Iron and Steel Mill.

Source Address:	3210 Watling Street, East Chicago, Indiana 46312
General Source Phone Number:	(219) 391-2133
SIC Code:	3312
County Location:	Lake County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

### A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

---

The source includes ArcelorMittal USA, Inc. Plant ID 089-00316, an integrated steel mill collocated with the following on-site contractors:

- (a) ArcelorMittal USA, Inc. (Plant ID 089-00316), the primary operation, is located at, 3210 Watling Street, East Chicago, Indiana;
- (b) Fritz Enterprises Inc. (Plant ID 089-00465), the on-site contractor (an iron and steel recycling process and a coke screening plant), is located at 3210 Watling Street, East Chicago, Indiana;
- (c) Beemsterboer Slag and Ballast Corp. (Plant ID 089-00356), the on-site contractor (a slag crushing and sizing operation), is located at 3210 Watling Street, East Chicago, Indiana;
- (d) East Chicago Recovery (Plant ID 089-00358), the on-site contractor (a briquetting facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (e) Heckett MultiServ (Plant ID 089-00367), the on-site contractor (a scarfing operation), is located at 3236 Watling Street, East Chicago, Indiana;
- (f) Oil Technology (Plant ID 089-00369), the on-site contractor (a used oil recycling facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (g) Mid Continent Coal and Coke (Plant ID 089-00371), the on-site contractor (a metallurgical coke separation facility), is located at 3236 Watling Street, East Chicago, Indiana;
- (h) Indiana Harbor Coke Company (IHCC) (Plant ID 089-00382), the on-site contractor (a heat recovery coal carbonization facility), is located at 3210 Watling Street, East Chicago, Indiana 46312;
- (i) Cokenergy, Inc. (Plant ID 089-00383), the on-site contractor (a heated gas steam from coal carbonization operation), is located at 3210 Watling Street, East Chicago, Indiana;
- (j) LAFARGE North America (Plant ID 089-00458), the on-site contractor (a slag granulator and pelletizer operation), is located at 3210 Watling Street, East Chicago, Indiana; and

- (k) Phoenix Services LLC, dba Metal Services LLC (Plant ID 089-00536), the on-site contactor (a slag and kish processing operation) is located at 3236 Watling Street, East Chicago, Indiana 46312.

<b>Company Name</b>	<b>TV Permit Number</b>
ArcelorMittal USA, Inc.	089-6577- 00316
Fritz Enterprises Inc.	089-20315-00465
Beemsterboer Slag and Ballast Corp.	089-6580-00356
East Chicago Recovery	089-6583-00358
Heckett MultiServ	089-6581-00367
Oil Technology, Inc.	089-6579-00369
Mid Continent Coal and Coke	089-6582-00371
Indiana Harbor Coke Company	089-11311-00382
Cokenergy, Inc.	089-11135-00383
LAFARGE North America	089-14766-00458
Phoenix Services LLC, dba Metal Services LLC	089-26806-00536

The source includes ArcelorMittal Indiana Harbor, LLC, an integrated steel mill with the following on-site contractors:

- (a) ArcelorMittal Indiana Harbor, LLC (Plant ID 089-00318), the primary operation, is located at 3001 Dickey Road, East Chicago, Indiana;
- (b) Oil Tech, Inc (Plant ID 089-00375), the on-site contractor (a used oil recycling facility), is located at 3001 Dickey Road, East Chicago, Indiana;
- (c) International Mill Service (Plant ID 089-00353), the on-site contractor (a steel slab scarfer) is located at 3001 Dickey Road, East Chicago, Indiana;
- (d) Edward Levy (Plant ID 089-00339), the on-site contractor (a slag processing facility), is located at 3001 Dickey Road, East Chicago, Indiana;
- (e) Ironside Energy, LLC (Plant ID 089-00448), the on-site contractor (an industrial steam and electric power cogeneration plant), is located at 3001 Dickey Road, East Chicago, Indiana;
- (f) Phoenix Services, LLC (Plant ID 089-00538), the on-site contractor (a slag and kish processing plant), is located at 3001 Dickey Road, East Chicago, Indiana;
- (g) Beemsterboer Slag Corporation (Plant ID 089-00537), the on site contractor (a metallurgical coke screening plant), is located at 3001 Dickey Road, East Chicago, Indiana; and
- (h) Mid-Continental Coal and Coke (Plant ID 089-00507, the on site contractor (metallurgical coke screening plant), is located at 3001 Dickey Road, East Chicago, Indiana.

<b>Company Name</b>	<b>TV Permit Number</b>
ArcelorMittal Indiana Harbor, LLC	089-7099-00318
Oil Technology	089-7517-00375
International Mill Service	089-7562-00353
Edward Levy	089-6260-00339
Ironside Energy	089-11557-00448
Phoenix Services, LLC	089-27232-00538
Beemsterboer Slag Corporation	089-27146-00537
Mid-Continental Coal and Coke	089-21801-00507

Separate Part 70 permits will be issued to ArcelorMittal USA, Inc., ArcelorMittal Indiana Harbor, LLC and each on-site contractor, solely for administrative purposes. The companies may maintain separate reporting and compliance certification.

**A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(15)]**  
ArcelorMittal USA, Inc. (Plant ID 089-00316), consists of the following permitted emission units and pollution control devices:

- (a) No. 5 and 6 Blast Furnace processes, with a combined estimated maximum production rate of 2,506,000 tons per year of hot iron metal, comprised of the following facilities, process equipment and operational practices:
  - (1) One (1) Pulverized Coal Storage Bin with Bin Vent Filter H (191), having a 400 ton storage capacity, estimated maximum throughput of 325,000 tons per year of pulverized coal, and a flow rate of 3500 acfm, exhausting through stack 191 and constructed in 1991.
  - (2) No. 5 Blast Furnace, installed in 1939 consisting of:
    - (A) One (1) Stockhouse, including coke screening.
    - (B) No. 5 Blast Furnace Stoves (3 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 5 Blast Furnace and exhausting combustion emissions through stack 5.
    - (C) No. 5 Blast Furnace with an integral blast furnace gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 5 Blast Furnace Stoves.
    - (D) No. 5 Blast Furnace Casthouse with casting emissions controlled by two (2) No. 5 Blast Furnace Casthouse Collection System Scrubbers having a flow rate of 40,000 acfm, exhausting through stack 1 with construction upgrades in 1986 and 1991.
    - (E) One (1) No. 5 Blast Furnace Casthouse Roof Monitor.
    - (F) Slag pots and pits for handling slag waste.
  - (3) No. 6 Blast Furnace, installed in 1942, consisting of:
    - (A) One (1) Stockhouse, including coke screening.

- (B) No. 6 Blast Furnace Stoves (4 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 6 Blast Furnace and exhausting combustion emissions through stack 6.
  - (C) No. 6 Blast Furnace with an integral gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 6 Blast Furnace Stoves.
  - (D) No. 6 Blast Furnace Casthouse with casting emission controlled by No. 6 Blast Furnace Casthouse Collection System Scrubber having a flow rate of 40,000 acfm, exhausting through stack 2, with a construction upgrade in 1986 on this equipment.
  - (E) No. 6 Blast Furnace Casthouse Roof Monitor.
  - (F) Slag pots and pits for handling slag waste.
- (b) No. 7 Blast Furnace process is comprised of the following facilities, process equipment and operation practices:
- (Significant Source Modification 089-16966-00316, issued on November 26, 2003 allows for the maximum production rate to increase to 4,417,000 tons per year of molten metal)
- (1) Raw material handling and stockhouse material handling for receiving, storage and delivery of blast furnace raw material. The handling operation has an estimated maximum throughput of 7,704,971 tons of iron ore pellets per year; stored in four (4) storage bins with 8073 tons total capacity; 1,514, 604 tons of coke per year, stored in four (4) storage bins with 1314 tons total capacity; and 1,082,736 tons of flux and miscellaneous material per year, stored in six (6) storage bins with 4200 tons total capacity. Emissions are controlled by two (2) baghouses: (1) identified as 168-stockhouse pellet and flux handling baghouse, having a flow rate of 82,500 acfm and (2) identified as 172-stockhouse coke handling baghouse having a flow rate of 27, 500 acfm.
  - (2) Coke screening operation with emissions controlled by a baghouse, previously identified as 169, having a flow rate of 47,116 acfm and an average screening capacity of 400 tons per hour. (This equipment is not currently operating)
  - (3) One (1) blast furnace, identified as No. 7, constructed in 1980 with blast furnace gas processed by a gas cleaning system and equipped with three (3) flares, each with a 1.15 MMBtu per hour igniter capacity of flaring one-third of the maximum generated blast furnace gas through stack 195.
  - (4) No. 7 Blast Furnace Casthouse constructed in 1980 with casting emissions controlled by two (2) baghouses: identified as 166 (West baghouse) having a flow rate of 500,000 acfm; and 167 (East baghouse) having a flow rate of 300,000 acfm. Emissions from No. 7 blast furnace casthouse are also controlled by trough and runner covers and hoods over the tap holes and pugh ladle addition points.
  - (5) No. 7 Blast Furnace stoves (3 units) using blast furnace gas and natural gas as fuel with an estimated maximum combined heat input capacity of 953 MMBtu/ hr and emissions exhausting through stack 170. Significant Source Modification 089-16966-00316, issued on November 26, 2003 allows for a blast capacity increase and the construction of a fourth (4<sup>th</sup>) stove.
  - (6) One (1) Casthouse Roof Monitor 171.

- (7) One (1) coke transfer tower (No.4), identified as 164, installed in 1997, with an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled by one (1) baghouse, and exhausting inside the tower.
  - (8) One (1) coke transfer point, identified as 169, installed in 1997, with an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled.
  - (9) Slag pits
- (c) One (1) Sinter Plant, constructed in 1959, with an estimated maximum raw material usage of 1.4 million tons per year comprised of the following facilities, process equipment, and operational practices:
- (1) Raw material handling and blend site.
  - (2) One (1)-sinter plant windbox, controlled by the main baghouse with emissions exhausting through stack 7.
  - (3) One (1) sinter plant discharge end, controlled by the discharge end baghouse, and one (1) cooler station, partially controlled by the discharge end baghouse, with emissions exhausting through stack 8, installed in 1959.
  - (4) One (1) sinter plant upper screening station, with conveyors, screen hoods, and duct system routed to and controlled by the upper screening station baghouse with emissions exhausting through stack 11. This equipment was constructed in 1998.
  - (5) Sinter loading, unloading, and transfer operations.
- (d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:
- (1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).
  - (2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.
  - (3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.
  - (4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187,
  - (5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.
- (e) The No. 2 Basic Oxygen Furnace (BOF) Shop, comprised of the following facilities, process equipment, and operational practices:
- (1) Raw material handling, ladle additive truck hopper loading system having an estimated maximum throughput of 328,000 tons per year of alloy and flux. Emissions from the truck hopper are controlled by a baghouse, which has a flow rate of 75,000-acfm exhausting through stack 150. Emissions from the alloy and flux storage and handling system are controlled by a baghouse, which has a flow rate of 50,000-acfm, exhausting through stack 151. Both baghouses were constructed in 1974.

- (2) One (1) Hot metal station containing reladling, desulfurization, and slag skimming operations having an estimated maximum capacity of 4,029,600 tons of hot metal per year. Captured emissions from the hot metal station and charging aisle are controlled by a baghouse having a flow rate of 360,000-acfm, exhausting through stack 152. Original construction was 1974 and an upgrade was completed in August 1994 as part of a consent decree.
  - (3) Two (2) BOFs, identified as No. 10 and No. 20, and operations including charging, oxygen blowing, tapping, and alloy addition with a total estimated maximum capacity of 4,543,600 tons of hot metal and scrap per year. Captured emissions controlled by two (2) off-gas scrubber systems with flares having a flow rate of 1,500,000-acfm each, exhausting through flare stacks 147 and 148. Construction commenced on this equipment in 1970. Uncaptured emissions exhausting through roof monitor 153 and charging and miscellaneous furnace emissions exhausting through a secondary ventilation scrubber having a flow rate of 194,000-acfm, exhausting through stack 149. The Off-gas scrubber systems were constructed in 1974 and the Secondary Vent scrubber was replaced in 2003.
  - (4) One (1) ladle metallurgy facility (LMF) station consisting of alloy addition, electric arc reheat, slag skimming, and raw material handling specifically for the metallurgy station with an estimated maximum throughput of 4,029,600 tons per year of steel. Captured emissions are controlled by a baghouse having a flow rate of 135,000-acfm, exhausting through stack 154. This equipment was constructed in 1985.
  - (5) One (1) Continuous casting operations consisting of slab casters, and three (3) torch cutoff machines. Leded emissions from the casters exhaust through the caster fume baghouse, which has a flow rate of 171,000 acfm, exhausting through stack 159. Steam from the water spray cooling exhausts through three (3) vents along the caster, identified as stacks 160, 161, and 162. Fugitive emissions from the casting operations exhaust through a roof monitor, identified as 158. This equipment was constructed in 1985. (Bloom caster at this site is permanently shutdown)
  - (6) A tundish dump and repair station with leaded emissions controlled by a baghouse, which has a flow rate of 50,000 acfm, exhausting through stack 156. This equipment was constructed in 1989.
  - (7) Miscellaneous natural gas combustion used for ladle preheating, exhausting through stack 157, and tundish and ladle shroud preheating and drying, exhausting through No.2 BOF Shop Roof Monitors 155.
  - (8) Slag skimming into slag pots.
- (f) No.4 Basic Oxygen Furnace (BOF) comprised of the following facilities, process equipment, and operational practices:
- (1) Flux, alloy and waste oxide briquettes (WOB) unloading, hopper house and storage/handling facility.
  - (2) Scrap metal unloading/storage (scrap yard) and scrap metal charging box.
  - (3) Two (2) Hot metal transfer and desulfurization operations having an estimated maximum capacity of 4,222,320 tons of hot metal per year with captured emissions controlled by two (2) baghouses having flow rates of 190,000 and 220,000 acfm, exhausting through stacks 26 and 27. This equipment was constructed in 1977.
  - (4) Two (2) BOFs, identified as No. 50 and No. 60 and operations including charging, blowing, tapping, flux and alloy additions, and slag skimming with a total estimated maximum capacity of 5,676,366 tons of hot metal and scrap per year with

- uncaptured emissions exhausting through a roof monitor (stack 29), and captured emissions controlled by a four (4) off-gas scrubber system, exhausting through stack 38. The scrubber system equipment was modernized in 2007. Charging, tapping, and miscellaneous furnace emissions are controlled by a secondary ventilation baghouse having a flow rate of 600,000 acfm, exhausting through stack 37. This equipment was constructed in 1977 and modified in 1996.
- (5) Raw material handling system for the RHOB facility, including hopper house, alloy and flux storage bins having an estimated maximum throughput of 4,700,000 tons per year and dust emissions controlled by a baghouse having a flow rate of 48,100 acfm and exhausting through stack 33.
  - (6) One (1) RHOB vacuum degasser with natural gas-fired flare for exhaust gas control with an estimated maximum throughput of 4,686,600 tons/year of steel, exhausting through stack 32. This equipment was constructed in 1987.
  - (7) Ladle and tundish preheaters (stack 36).
  - (8) Two (2) argon stirring stations and one (1) continuous caster with tundish, caster mold exhausting through one (1) mold fume baghouse (stack 214), and casting machine with cutoff, with steam vents exhausting through stacks 24 and 25.
  - (9) Torch cutoff exhausting into the building (stack 31).
  - (10) Maintenance and miscellaneous operations associated with the BOF.
  - (11) Furnace Additives Transfer House Baghouses, exhausting inside the buildings (stacks 28 and 35).
  - (12) Slag dumping.
- (g) No. 1 Lime Plant was constructed in 1973 with an estimated maximum capacity of 569,400 tons per year of lime comprised of the following facilities, process equipment, and operational practices:
- (1) Limestone unloading, storage and screening area.
  - (2) Two (2) Limestone preheaters, two (2) rotary kilns with an estimated maximum heat input rate of 284 MMBtu/hr fueled by natural gas or residual fuel oil, with exhaust from kilns routed back to preheaters and then to a set of multiclones. The remaining emissions from the kilns and preheaters are controlled by two (2) baghouses ("213-1" & "213-2") exhausting through stacks 45 and 49.
  - (3) Dust fines are sent to two dust bins, with emissions controlled by baghouses ("217-1" & "217-2") and exhausting through stack 46.
  - (4) Ten (10) storage silos receive an estimated maximum of 569,400 tons per year of finished lime, with fines controlled by lime handling baghouses ("413") and exhausting through stack 47.
  - (5) Fugitive control project including loadout spout on rejection bin controlled by existing kiln baghouse, preheater area enclosure around two (2) kiln feed hood/ram loadout dribbles, preheater area loading spouts for truck loading with displaced air controlled by existing kiln baghouse and ten (10) loading spouts at the truck loadout area with exhaust controlled by loadout baghouse ("408") and exhausting through stack 48. Lime product handling emissions from transfer points between both sides of lime cooler rotary valves and lime product/reject handling belts inside the firing building are controlled by a baghouse ("420") exhausting through stack 50. This equipment was upgraded in 1997.

- (h) No. 1 Electric Arc Furnace comprised of the following facilities, process equipment, and operational practices:
- (1) Bulk alloy handling: Raw material unloading, piling, and transporting of scrap metal, fluxes, and alloys.
  - (2) Raw material charging to the electric arc furnace.
  - (3) One (1) electric arc furnace with eccentric bottom tapping (EBT), having an estimated maximum annual capacity of 975,000 tons with emissions controlled by a baghouse having a flow rate of 500,000 acfm exhausting through baghouse roof monitor (141) commencing operation in 1970 and upgraded in 1996.
  - (4) One (1) ladle metallurgical facility (LMF) station constructed in 1989 with a maximum annual capacity of 975,900 tons with particulate emissions controlled by a baghouse having a flow rate of 40,000 acfm and a Wet Gas Scrubber for Sulfur Dioxide (SO<sub>2</sub>) emissions control exhausting through stack 143.
  - (5) Five (5) natural gas ladle preheaters constructed in 1990, each has one (1) or two (2) burners with a 15 MMBtu per hour combined maximum heat input and emissions uncontrolled exhausting through stack 140.
  - (6) One (1) continuous casting tundish and one (1) continuous casting mold operations controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 137.
  - (7) Cooling operation exhausting through stack 145.
  - (8) Slag handling operations.
  - (9) EAF Shop Roof Monitor (stack 142).
  - (10) One (1) leaded steel torch cutoff operation controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 138.
    - (11) One (1) leaded steel LMF ladle dump and repair station controlled by a baghouse during breakout and removal of lead-contaminated refractory materials having a flow rate of 100,000 acfm and exhausting through stack 136.
- (i) Direct Reduced Iron (DRI) storage and conveying system constructed in 2001, comprised of the following facilities, process equipment, and operational practices:
- (1) One (1) enclosed truck/trailer unloading area identified as 213 with a maximum throughput of 400,000 tons per year of DRI.
  - (2) A DRI conveyor system consisting of:
    - (A) One (1) 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents.
    - (B) One (1) horizontal trough belt stocking conveyor.
    - (C) Multiple Delivery Conveyors.
  - (3) Emission control system for (1) and (2) to remove particulate matter consisting of:
    - (A) Bin Vent Filter No. 1 (210)
    - (B) Bin Vent Filter No. 2 (211)
    - (C) Bin Vent Filter No. 3 (212)

- (j) 80" Hot Strip Mill comprised of the following facilities, process equipment, and operational practices:
  - (1) One (1) No. 4 Walking Beam Furnace, with an estimated maximum heat input rate of 720 MMBtu/hr, equipped with low NOx burners and using natural gas as fuel, exhausting through stack 101 and 102, installed in 2001.
  - (2) One (1) No. 5 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 107, installed in 1995.
  - (3) One (1) No. 6 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 108, installed in 1995.
  - (4) One (1) Hot Rolling Mill Operation, including roughing mill with cooling water spray, crop shear and finishing stands exhausting to roof monitor 109.
  
- (k) 12" Bar Mill comprised of the following facilities, process equipment, and operational practices:
  - (1) One (1) Billet Inspection Line Shotblaster, installed in 1994 with emissions controlled by a baghouse having an estimated maximum flow rate of 5000 acfm vented inside the building.
  - (2) One (1) Billet Grinding installed in 1977 exhausting through stack 87.
  - (3) One (1) natural gas fired Billet Reheat Furnace, installed in 1977, having an estimated maximum heat input of 375 MMBtu/hr, exhausting through stack 89
  - (4) One (1) 23 Stand Rolling Mill exhausting to roof monitor 88.
  
- (l) No. 3 Cold Strip Mill comprised of the following facilities, process equipment, and operational practices:
  - (1) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.
  - (2) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.
  - (3) 56 inch Tandem Mill (4 Stands) controlled by a mist eliminator exhausting through stack 177.
  - (4) 80 inch Tandem Mill (5 Stands) controlled by a mist eliminator exhausting through stack 175.
  - (5) Temper Mill No. 28 exhausting through stack 180.
  - (6) Temper Mill No. 29 exhausting through stack 181.
  
- (m) Coated Products comprised of the following facilities, process equipment, and operational practices:
  - (1) No. 5 Galvanizing Line constructed in 1968, including:
    - (A) One (1) natural gas fired Radiant tube reducing furnace utilizing recuperative radiant tube burners with a an estimated maximum heat input of 112.6 MMBtu/hr, exhausting through stack 182.

- (B) One (1) natural gas fired Galvanneal Furnace with an estimated maximum heat input of 36 MMBtu/hr, exhausting inside the building (open roof monitor)-182A.
- (2) No. 1 Normalizer constructed in 1957, including:
  - (A) One (1) natural gas fired reducing furnace with 193 natural gas fired Eclipse SER burners with a total heat input of 31.652 MMBtu/hr exhausting through stack 183.
  - (B) One (1) natural gas fired flame heater furnace with an estimated maximum heat input of 28 MMBtu/hr annealing furnace exhausting through stack 183
  - (C) One (1) acid cleaning tank using hydrochloric acid and one (1) cascade rinse tank with emissions controlled by a fume scrubber and exhausting through stack 184.
- (3) No. 3 Continuous Anneal Line constructed in 1982, including:
  - (A) One (1) natural gas fired Annealing Furnace and One (1) natural gas fired Age Furnace with an estimated total maximum heat input of 108 MMBtu/hr, hydrogen and nitrogen (static atmosphere), vented through stack 173.
  - (B) One (1) acid cleaning tank using hydrochloric acid with emissions controlled by a fume scrubber and exhausting through stack 174.
- (4) Batch Anneal Facilities including:
  - (A) No. 5 Batch Anneal constructed in 1958, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 136 MMBtu/hr exhausting through stack 112.
  - (B) No. 6 Batch Anneal constructed in 1970, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 205 MMBtu/hr exhausting through stack 113.
- (n) Utilities comprised of the following facilities, process equipment, and operational practices:
  - (1) No. 2 AC Station including:
    - (A) Three (3) Boilers identified as 211-213, fired by natural gas and blast furnace gas from No. 5 and No. 6 blast furnaces:
      - (i) Boiler 211 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 125 and 126.
      - (ii) Boiler 212 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 127 and 128.
      - (iii) Boiler 213 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1949 exhausting through stacks 129 and 130.
    - (B) Two (2) Blast Furnace Gas Flares to burn excess blast furnace gas from No. 5 and No. 6 Blast Furnaces exhausting through stack 131.
    - (C) Nine (9) turbo blowers and five (5) electricity generators.

- (2) No. 5 Boilerhouse consisting of Boilers 501-503 installed in 1976, each with an estimated maximum heat input of 520 MMBtu/hr exhausting through stack 134 and No. 504 Boiler approved in 2010 for construction with an estimated maximum heat input of 561.6 MMBtu/hr exhausting through stack 134a. The boilers are fired by blast furnace gas from No. 7 Blast Furnace gas and natural gas, produce steam, which is used in three turbo blowers to produce blast air, at generators to produce electrical power, and for general plant use.
- (o) Shops comprised of the following facilities, process equipment, and operational practices:
- (1) Mold Foundry Building: Pugh Ladle Car Preparation, dekishing, debricking and drying fired by natural gas (44) and Pugh ladle lancing fired by natural gas with emissions controlled by former mold foundry baghouse exhausting through stack 43. This baghouse also controls Pugh Ladle pigging emissions resulting from the adjacent contractor's operation.
  - (2) No. 6 Roll shop for 12 inch bar mill including shotblaster with emissions controlled by a baghouse and exhausting through stack 200.
  - (3) Electric Shop including shotblaster with emissions controlled by a baghouse and exhausting through stack 201, blaster baghouse unloading, paint booth, varnish dip tanks and undercutting booth.
  - (4) No. 4 Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 203, Wheelabrator shotblaster with emissions controlled by a baghouse and exhausting through stack 204.
  - (5) No. 4 A Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 205 and Pangborn shotblaster with emissions controlled by a baghouse and exhausting through stack 206.
  - (6) No. 5 Roll Shop.
  - (7) Mobile Equipment shop including refrigerant recovery and parts cleaning.
  - (8) Equipment Repair Shop including Machine Shop (Plant 2).
  - (9) Mason Building Shop.
  - (10) Refrigeration Shop.
  - (11) Fabrication and Repair Shop (Plant 1).
- (p) Storage Vessels:
- (1) One (1) 21,380 gallon tank (T19K1) containing Diesel No. 2, located at the "E" Yard – Internal Logistics, constructed prior to 1972.
  - (2) One (1) 21,380 gallon tank (T-8H1) containing Diesel No. 2, located at the "B" Yard – 2 BOF, constructed prior to 1972.
  - (3) One (1) 10,000 gallon tank (T20K-1) containing Diesel No. 2, located at the Main Shop Fueling Station – Internal Logistics, constructed in 1997.
  - (4) One (1) 8,000 gallon tank (T02E-1) containing Diesel No. 2, located south of the bar company scrap yard - 12" Bar Mill constructed in 1999.

- (5) One (1) 7,500 gallon tank (T1G-1) containing Diesel No. 2, located north of the Electric Furnace Billet Caster constructed in 1999.
- (6) One (1) 6,000 gallon tank (T25E-1) containing Diesel No. 2, located at the No. 7 Blast Furnace Emergency Pump House, constructed in 1994.
- (7) One (1) 5,000 gallon tank (T17P-1) containing Diesel No. 2, located at the 80" Hot Strip Mill coil carrier fuel station, constructed in 1994.
- (8) One (1) 4,200 gallon tank (T10-200) containing Diesel No. 2, located at the No. 3 Cold Strip East bulk oil storage area constructed in 1970.
- (9) One (1) 3,355 gallon tank (T18E-1) containing Diesel No. 2, located at the #4 BOF Mobile Equipment Shop, constructed in 1994.
- (10) Two (2) 3,000 gallon tanks (T10-232a & T10-232b) containing Power Clean, located at the No. 3 Cold Strip East, Nos. 4 and 5 Hydraulic System, constructed in 1970.
- (11) One (1) 130,000 gallon tank (T-17F1) containing Reclaimed oil, located at the Lime Plant, constructed in 1973.
- (12) One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.
- (13) One (1) 1,016,000 gallon tank (T-6F1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.
- (14) One (1) 1,016,000 gallon tank (T-6F2) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.
- (15) One (1) 500,000 gallon tank (T-6F3) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1975.
- (16) One (1) 100,000 gallon tank (T-02F1) containing #6 fuel oil, located at the 12" Bar Mill, constructed in 1977.
- (17) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.
- (18) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

A.4 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

ArcelorMittal USA, Inc. (Plant ID 089-00316) also includes the following insignificant activities as defined in 326 IAC 2-7-1(21), with specifically regulated insignificant activities identified in Section D.16:

- (a) Space heaters, process heaters, or boilers using the following fuels:
  - (1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
  - (2) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.

- (3) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.
- (c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (d) The following VOC and HAP storage containers:
  - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons. [326 IAC 8-9-1]
  - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (e) Refractory storage not requiring air pollution control equipment.
- (f) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.
- (g) Machining where an aqueous cutting coolant continuously floods the machining interface.
- (h) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-5]
- (i) Cleaners and solvents characterized as follows:
  - (1) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or;
  - (2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (j) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]
- (k) Closed loop heating and cooling systems.
- (l) Rolling oil recovery systems.
- (m) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
- (n) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the Permittee, that is, an on-site sewage treatment facility.
- (o) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
- (p) Noncontact cooling tower systems with either of the following:
  - (1) Natural draft cooling towers not regulated under a NESHAP.

- (2) Forced and induced draft cooling tower system not regulated under a NESHAP.
- (q) Quenching operations used with heat treating processes.
- (r) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (s) Heat exchanger cleaning and repair.
- (t) Process vessel degreasing and cleaning to prepare for internal repairs.
- (u) Paved and unpaved roads and parking lots with public access.
- (v) Conveyors as follows:
  - (1) Covered conveyor for coal or coke conveying of less than or equal to 360 tons per day;
  - (2) Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;
  - (3) Uncovered coal conveying of less than or equal to 120 tons per day.
  - (4) Underground conveyors.
- (w) Asbestos abatement projects regulated by 326 IAC 14-10.
- (x) Purging of gas lines and vessels that is related to routing maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (y) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.
- (z) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (aa) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (bb) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.
- (cc) On-site fire and emergency response training approved by the department.
- (dd) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.8-1-2]
- (ee) Purge double block and bleed valves.
- (ff) Filter or coalescer media change out.
- (gg) Vents from ash transport systems not operated at positive pressure.

- (hh) A laboratory as defined in 326 IAC 2-7-1(21)(D)
- (ii) Any unit emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP
  - (1) Process Water Cooling Towers (chlorine addition)

#### A.5 Fugitive Dust Sources

---

ArcelorMittal USA, Inc. (Plant ID 089-00316) also includes Fugitive Dust Sources consisting of, but not limited to the following:

- (a) Paved Roads and Parking Lots
- (b) Unpaved Roads and Parking Lots
- (c) Batch Transfer-Loading and Unloading Operations
- (d) Continuous Transfer In and Out of Storage Piles
- (e) Batch Transfer Operations-Slag and Kish Handling
- (f) Wind Erosion from Storage Piles and Open Areas
- (g) In Plant Transfer by Truck or Rail
- (h) In Plant Transfer by Front End Loader or Skip Hoist
- (i) Material Processing Facility (except Crusher Fugitive Emissions)
- (j) Crusher Fugitive Emissions
- (k) Material Processing Facility Building Openings
- (l) Dust Handling Equipment

#### A.6 Part 70 Permit Applicability [326 IAC 2-7-2]

---

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

---

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Permit Term [326 IAC 2-7-5(2)] [326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][13-15-3-6(a)]

---

- (a) This permit, T089-6577-00316, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### B.3 Enforceability [326 IAC 2-7-7]

---

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

### B.4 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

---

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.5 Severability [326 IAC 2-7-5(5)]

---

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

---

This permit does not convey any property rights of any sort or any exclusive privilege.

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

---

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

### B.8 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

---

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

---

- (a) For compliance certification purposes, the term "source" refers to ArcelorMittal USA, Inc. (Plant ID 089-00316).
- (b) The Permittee shall annually submit a compliance certification report which addresses the status of ArcelorMittal USA, Inc. (Plant ID 089-00316) compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (c) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of ArcelorMittal USA, Inc. (Plant ID 089-00316), currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of ArcelorMittal USA, Inc. (Plant ID 089-00316).

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)]  
[326 IAC 1-6-3]

---

- (a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:
- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) To the extent the Permittee is required by 40 CFR Part 60 or Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

---

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance Section), or  
Telephone No.: 317-233-0178 (ask for Compliance and Enforcement Branch)  
Facsimile No.: 317-233-6865

Northwest Regional Office Telephone Number: (219) 757-0265  
Northwest Regional Office Facsimile Number: (219) 757-0267

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
  - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.12 Permit Shield [326 IAC 2-7-15] [326 IAC 2-7-20] [326 IAC 2-7-12]**

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, as well as the Federal Statutes from the Clean Air Act and the

federal rules from 40 CFR, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

**B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5] [326 IAC 2-7-10.5]**

---

- (a) All terms and conditions of permits established prior to T089-6577-00316 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or
  - (3) deleted under 326 IAC 2-7-10.5.

- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
- (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source,

except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permits Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permits Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are

explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.19 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

---

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and trades that are subject to 326 IAC 2-7-20(b), (c), or (e). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b)(1), (c)(1), and (e)(2).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5] [326 IAC 2-2-2][326 IAC 2-3-2]

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and/or 326 IAC 2-3-2.

B.21 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2] [IC 13-30-3-1] [IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management  
Permits Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

B.25 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**C.1 Opacity [326 IAC 5-1]**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

**C.2 Open Burning [326 IAC 4-1] [IC 13-17-9]**

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.3 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

**C.4 Fugitive Dust Emissions [326 IAC 6-4]**

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**C.5 Stack Height [326 IAC 1-7]**

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

**C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:

- (A) Asbestos removal or demolition start date;
  - (B) Removal or demolition contractor; or
  - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-7-6(1)]**

#### **C.7 Performance Testing [326 IAC 3-6]**

---

- (a) All testing required pursuant to the conditions of this permit shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol for such required testing, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) For such required testing the Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) Pursuant to 326 IAC 3-6-4(b), such test reports for testing required by this permit must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

#### **Compliance Requirements [326 IAC 2-1.1-11]**

##### **C.8 Compliance Requirements [326 IAC 2-1.1-11]**

---

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Such monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

#### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]**

##### **C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

---

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

##### **C.10 Continuous Compliance Plan [326 IAC 6.8-8-1] [326 IAC 6.8-8-8]**

---

- (a) Pursuant to 326 IAC 326 IAC 6.8-8-1, the Permittee shall submit to IDEM and maintain at source a copy of the Continuous Compliance Plan (CCP). The Permittee shall perform the

inspections, monitoring and record keeping in accordance with the information in 326 IAC 6.8-8-5 through 326 IAC 6.8-8-7 or applicable procedures in the CCP.

(b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP, if required to IDEM, OAQ within thirty (30) days of the update.

(c) Pursuant to 326 IAC 6.8-8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit update to a CCP is a violation of 326 IAC 6.8-8.

**C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

---

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

**C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]**

---

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]**

**C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

---

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) If the ERP is disapproved by IDEM, OAQ, , the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

- (f) Upon direct notification by IDEM, OAQ, , that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

---

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

---

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
- (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
- (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

---

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
  - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants (as defined by 326 IAC 2-7-1(32)) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

#### **C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]**

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2 2 1(qq) and/or 326 IAC 2 3 1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is

not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll) at an existing emissions unit, document and maintain the following records:
  - (A) A description of the project.
  - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
  - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
    - (i) Baseline actual emissions;
    - (ii) Projected actual emissions;
    - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
    - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
- (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

---

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll) *at an existing emissions unit*, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

### **Stratospheric Ozone Protection**

#### **C.20 Compliance with 40 CFR 82 and 326 IAC 22-1**

---

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

**SECTION D.0 FACILITY OPERATION CONDITIONS-  
 No.7 Blast Furnace operation modification project**

**Facility Description [326 IAC 2-7-5(15)]:**

**Increase in production of hot metal by detailed reline project and addition of 4th stove:**

- (a) Modifications to existing Blast Furnace identified as No.7, by a detailed reline and the addition of a fourth blast air heating stove to provide additional blast capacity, exhausting to stack 170. This modification is intended to increase production of hot metal from this furnace by 772,620 tons per year.
- (b) Additional 373,155 tons per year of pulverized coal for injection into the No.7 Blast Furnace will be supplied by the existing pulverized coal injection system without any changes to the existing equipment.
- (c) The usage of iron bearing self-fluxing pellets as raw material for molten metal production at No.7 Blast Furnace will increase by 1,295,275 tons per year.
- (d) Increased consumption of coke at No.7 Blast Furnace by 296,686 tons per year, either from the on-site coke plant operated by Indiana Harbor Coke Company or purchased from an offsite producer.
- (e) Utilization of an additional 28,082 MMSCF per year of blast furnace gas at the No.5 Boiler House to generate steam. This usage of additional blast furnace gas will likely reduce the use of natural gas at the No.5 Boiler House
- (f) Any additional blast furnace gas, which cannot be utilized, will be consumed in the three velocity nozzle flare identified as stack 195 at No.7 Blast Furnace.
- (g) Increased lime production at No.1 lime plant and consumption at No.2 and/or No.4 BOF shop by 50,355 tons per year. This will result in an increase of natural gas usage by 247 MMSCF per year.
- (h) The increased hot metal production at No.7 Blast Furnace will be processed at the existing No.2 and/or No.4 Basic Oxygen Furnaces (BOF) shops to produce additional steel. The steel production will increase by approximately 908,965 tons per year.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.0.1 Non-applicability of Major Modification [326 IAC 2-2-1 (x)]**

Pursuant to SSM #089-21207-00316, in order to make requirements of 326 IAC 2-2-1 (x) (Major Modification), not applicable to this modification, the cumulative emissions from emissions units listed in D.0.5 of particulate matter (PM), oxides of nitrogen (NO<sub>x</sub>) and Lead (Pb) associated with (when handling material to or from) the No.7 Blast Furnace operations shall be less than the following limitations:

Pollutant	Emissions (in tons per 12 consecutive month period with compliance demonstrated at the end of each month)
PM	1,250
NO <sub>x</sub>	3,082
Pb	5.17

**D.0.2 Non-applicability of Major Modification [326 IAC 2-3-1 (s)]**

Pursuant to SSM #089-21207-00316 and in order to make the requirements of 326 IAC 2-3-1 (s) (Major Modification) not applicable to this modification, the cumulative emissions from emissions units listed in D.0.5 of particulate matter less than 10 microns diameter (including filterable and condensable components) (PM<sub>10</sub>) and sulfur dioxide (SO<sub>2</sub>) associated with (when handling material to or from) the No.7 Blast Furnace operation shall be less than the following limitations:

Pollutant	Emissions (in tons per 12 consecutive month period with compliance demonstrated at the end of each month)
PM <sub>10</sub>	1,566
SO <sub>2</sub>	2,375

**D.0.3 Volatile Organic Compounds (VOC)– non-applicability of De-minimis [326 IAC 2-3-1 (l)]**

Pursuant to SSM #089-21207-00316 and in order to make the requirements of 326 IAC 2-3-1 (l) (De-minimis) not applicable to this modification, the cumulative emissions from emissions units listed in D.0.5 of VOC associated with (when handling material to or from) the No.7 Blast Furnace operation shall be less than 58.3 tons per 12 consecutive month period with compliance demonstrated at the end of each month.

**D.0.4 Carbon Monoxide (CO)– Air quality impacts and increment consumption [326 IAC 2-2-4, 5 and 6]**

Pursuant to SSM #089-21207-00316, 326 IAC 2-2-4, 2-2-5, and 2-2-6 (PSD Requirements: Air quality analysis, Air quality impacts and increment consumption), the cumulative emissions from emissions units listed in D.0.5 of CO associated with (when handling material to or from) No.7 Blast Furnace operation shall not exceed 39,566 tons per 12 consecutive month period with compliance demonstrated at the end of each month.

**D.0.5 Emissions units subject to the emissions limitations [326 IAC 2-2-1 (x)] [326 IAC 2-3-1 (s)] [326 IAC 2-3-1 (l)] [326 IAC 2-2-4, 5 and 6]**

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, the emissions limitations shown in D.0.1, D.0.2, D.0.3 and D.0.4 apply to the combined emissions from the following emissions units only to the extent that the operation and throughput of these emissions units can be directly attributed to (when handling material to or from) the operation and throughput at the No.7 Blast Furnace:

1. No.7 Blast Furnace:
  - (a) Casthouse No.7 Blast Furnace controlled by:
    - (A) east baghouse exhausting to stack 167
    - (B) west baghouse exhausting to stack 166
  - (b) Coke screening station controlled by baghouse exhausting to stack 169
  - (c) Stockhouse coke handling controlled by baghouse exhausting to stack 172
  - (d) Stockhouse pellet handling controlled by baghouse exhausting to stack 168
  - (e) No.7 Blast Furnace stoves exhausting to stack 170
  - (f) Slag pit operation
  - (g) Slag granulator and pelletizer operation
  - (h) Gas Cleaning System
  - (i) Flare stack 195
  - (j) Roof Monitor 171
2. No.5 Boiler House:

No.5 Boiler House exhausting to stack 134, to the extent increases in the usage of blast furnace gas from No.7 Blast Furnace at this unit.
3. Pulverized Coal Injection plant:
  - (a) Coal transfer A controlled by baghouse exhausting to stack 185
  - (b) Coal storage C controlled by baghouse exhausting to stack 186
  - (c) Coal pulverizer D controlled by baghouse exhausting to stack 187
  - (d) Coal pulverizer E controlled by baghouse exhausting to stack 188
  - (e) Coal storage F controlled by baghouse exhausting to stack 189
  - (f) Coal storage G controlled by baghouse exhausting to stack 190
  - (g) Coal unloading system exhausting to stack 192
4. No.1 Lime Plant:
  - (a) Lime plant storage silo controlled by baghouse exhausting to stack 47
  - (b) No.1 and No.2 Lime Kiln controlled by two (2) baghouses exhausting to stack 45 and 49

- (c) Lime plant fugitive control micro-pulse controlled by baghouse exhausting to stack 46
  - (d) Lime plant truck loadout controlled by baghouse exhausting to stack 48
5. No.2 BOF shop:
- (a) No.10 Basic Oxygen Furnace controlled by scrubber exhausting to stack 147
  - (b) No.20 Basic Oxygen Furnace controlled by scrubber exhausting to stack 148
  - (c) Ladle metallurgy facility station controlled by baghouse exhausting to stack 154
  - (d) Secondary ventilation system for No.2 BOF shop controlled by scrubber exhausting to stack 149
  - (e) Charge Aisle and Hot Metal Station controlled by baghouse exhausting to stack 152
  - (f) Truck and ladle hopper controlled by baghouse exhausting to stack 150
  - (g) Flux storage batch controlled by baghouse exhausting to stack 151
  - (h) Gas Cleaning System
  - (i) No.2 BOF Roof Monitor 153
  - (j) No.2 BOF Caster Roof Monitor 158
6. No.4 BOF shop:
- (a) No.4 BOF shop off gas controlled by scrubber exhausting to stack 38
  - (b) Secondary ventilation system for No.4 BOF shop controlled by a baghouse exhausting to stack 37
  - (c) Hot Metal Station baghouse (North) exhausting to stack 26
  - (d) Hot Metal Station baghouse (South) exhausting to stack 27
  - (e) RHOB condensers stack exhausting to stack 32
  - (f) RHOB material handling stack exhausting to stack 33
  - (g) Gas Cleaning System 4 BOF
  - (h) Gas Cleaning System 4 BOF RHOB
  - (i) Furnace additive bin loading exhausting to stack 28
  - (j) Torch cut exhausting to stack 31
  - (k) Furnace additive hopper house exhausting to stack 35
  - (l) No.4 BOF Roof Monitor 29

D.0.6 Operation Condition [326 IAC 2-2-3] [326 IAC 2-2-1 (x)] [326 IAC 2-3-1 (s)] [326 IAC 2-3-1 (l)] [326 IAC 2-2-4, 5 and 6]

---

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, 326 IAC 2-2-3, 326 IAC 2-2-1 (x), 326 IAC 2-3-1 (s), 326 IAC 2-3-1 (l), 326 IAC 2-2-4, 5 and 6, the production of hot molten metal from the No.7 Blast Furnace shall not exceed four million four hundred and seventeen thousand (4,417,000) tons per 365 consecutive days, with compliance demonstrated at the end of each day (a consecutive 24 hour period).

**Compliance Determination Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

D.0.7 Emissions Factors and Performance Testing

---

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003:

- (a) The Permittee shall use the emissions factors documented in Appendix-A of this permit in conjunction with the actual throughput of the emissions units in D.0.5 directly attributed to the operation of No.7 Blast Furnace to determine compliance with emissions limitations in conditions D.0.1, D.0.2, D.0.3 and D.0.4.
- (b) Pursuant to IC 13-15-7-1, IC 13-15-7-2, 326 IC 2-1.1-9(2) and 326 IAC 2-1.1-11 the IDEM, OAQ reserves the authority to require the Permittee to conduct performance tests to verify the emissions factors in Appendix-A of this permit.
- (c) After issuance of this permit, if the performance test results indicate a discrepancy between the emission factors in Appendix-A and the actual emissions rate observed during the test, the Permittee shall inform IDEM, OAQ, Permits Branch of such variation within 90 days of the submission of performance test report to IDEM.

- (d) Pursuant to IC 13-15-7-1, IC 13-15-7-2 and 326 IC 2-1.1-9(2), the IDEM, OAQ may re-evaluate the permit conditions and emissions factors in Appendix-A. IDEM, OAQ may, at its discretion, use the authority under IC 13-15-7-2, IC 13-15-7-2 and/or 326 IAC 2-1.1-9(2) to re-open and revise the permit to more closely reflect the actual performance test results using permit amendment or modification procedures.

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.0.8 Record Keeping Requirements**

---

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003:

- (a) To document compliance with D.0.6, the Permittee shall keep records of molten metal produced at the No.7 Blast Furnace in terms of tons of metal per three hundred and sixty five (365) days. These records shall be kept for at least a period of 60 months.
- (b) In order to document compliance with conditions D.0.1, D.0.2, D.0.3, D.0.4 and D.0.5 the Permittee shall:
- (1) Maintain records of the throughput or production that is directly attributed to (when handling material to or from) the operation and throughput at No.7 Blast Furnace at the emissions units listed in D.0.5.
  - (2) Maintain records of the emissions on monthly basis using the emissions factors in Appendix A in conjunction with throughput or production in item (1) of this sub-condition to calculate emissions from No.7 Blast Furnace operation modification project on monthly basis.
  - (3) These records shall be kept for at least a period of 60 months.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.0.9 Reporting Requirements**

---

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, in the event the emissions recorded per D.0.8 (b)(2) in any consecutive 12 month period exceed the emissions limitations specified in D.0.1, D.0.2, D.0.3 or D.0.4, the Permittee shall submit detailed report along with pertinent records to the addresses listed in Section C - General Reporting Requirements and IDEM, OAQ, Permits Branch, within sixty (60) days of end of period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### **D.0.10 Permit Expiration Date [326 IAC 2-2-8(a)(1)]**

---

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003 and 326 IAC 2-2-8(a)(1) (PSD Requirements: Source Obligation) Significant Source Modification 089-16966-00316 to construct shall expire if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is discontinued for a continuous period of eighteen (18) months or more, or if construction is not completed within reasonable time. IDEM may extend the eighteen (18) month period upon satisfactory showing that an extension is justified.

## SECTION D.1 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (a) No. 5 and 6 Blast Furnace processes, with a combined estimated maximum production rate of 2,506,000 tons per year of hot iron metal, comprised of the following facilities, process equipment and operational practices:
- (1) One (1) Pulverized Coal Storage Bin with baghouse H (191), having a 400 ton storage capacity, estimated maximum throughput of 325,000 tons per year of pulverized coal, and a flow rate of 3500 acfm, exhausting through stack 191 and constructed in 1991.
  - (2) No. 5 Blast Furnace, installed in 1939 consisting of:
    - (A) One (1) Stockhouse, including coke screening.
    - (B) No. 5 Blast Furnace Stoves (3 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 5 Blast Furnace and exhausting combustion emissions through stack 5.
    - (C) No. 5 Blast Furnace with an integral blast furnace gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 5 Blast Furnace Stoves.
    - (D) No. 5 Blast Furnace Casthouse with casting emissions controlled by two (2) No. 5 Blast Furnace Casthouse Collection System Scrubbers having a flow rate of 40,000 acfm, exhausting through stack 1 with construction upgrades in 1986 and 1991.
    - (E) One (1) No. 5 Blast Furnace Casthouse Roof Monitor.
    - (F) Slag pots and pits for handling slag waste.
  - (3) No. 6 Blast Furnace, installed in 1942, consisting of:
    - (A) One (1) Stockhouse, including coke screening.
    - (B) No. 6 Blast Furnace Stoves (4 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 6 Blast Furnace and exhausting combustion emissions through stack 6.
    - (C) No. 6 Blast Furnace with an integral gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 6 Blast Furnace Stoves.
    - (D) No. 6 Blast Furnace Casthouse with casting emission controlled by No. 6 Blast Furnace Casthouse Collection System Scrubber having a flow rate of 40,000 acfm, exhausting through stack 2, with a construction upgrade in 1986 on this equipment.
    - (E) No. 6 Blast Furnace Casthouse Roof Monitor.
    - (F) Slag pots and pits for handling slag waste.

The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

### **D.1.1 Lake County PM10 emission requirements [326 IAC 6.8-2-17]**

---

Pursuant to 326 IAC 6.8-2-17, the allowable PM10 emissions from No.5 and No. 6 Blast Furnace processes shall not exceed the following:

- (a) PM10 emissions from pulverized coal storage Bin Vent Filter H (191) shall not exceed 0.003 grains per dry standard cubic foot, 0.09 pounds per hour.
- (b) PM10 emissions from the stack serving No. 5 Blast Furnace Stoves (3 units) (stack 5), shall not exceed 0.016 pounds/MMBtu and 4.70 pounds per hour.
- (c) PM10 emissions from the stack serving No. 6 Blast Furnace Stoves (4 units) (stack 6), shall not exceed 0.016 pounds/MMBtu and 3.64 pounds per hour.

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

### **D.1.2 Particulate Matter (PM) [326 IAC 6.8-1-2]**

---

Pursuant 326 IAC 6.8-1-2, No. 5 Blast Furnace Casthouse Collection System Scrubbers (1), No. 6 Blast Furnace Casthouse Collection System Scrubber (2), the No. 5 Blast Furnace Casthouse Roof Monitor and No. 6 Blast Furnace Casthouse Roof Monitor shall not discharge to the atmosphere any gases which contain particulate matter in excess of 0.03 grains per dry standard cubic foot of exhaust air.

### **D.1.3 Sulfur Dioxide (SO<sub>2</sub>)[326 IAC 7-4.1-11]**

---

Pursuant to 326 IAC 7-4.1-11(a)(3), the sulfur dioxide emission rate from these units shall not exceed the following:

- (a) SO<sub>2</sub> emissions from the stack serving No. 5 Blast Furnace Stoves (3 units) (stack 5) shall not exceed 0.140 pounds per MMBtu and 41.02 lbs/hour.
- (b) SO<sub>2</sub> emissions from the stack serving No. 6 Blast Furnace Stoves (4 units) (stack 6) shall not exceed 0.140 pounds per MMBtu and 41.02 lbs/hour.

## **Compliance Determination Requirements**

### **D.1.4 Particulate Control [326 IAC 2-7-6(6)]**

---

- (a) In order to comply with D.1.1 (a), the coal storage bin baghouse H (191) for PM control shall be in operation and control emissions from the Pulverized Coal Storage Bin at all times that the No. 5 and No. 6 Blast Furnaces are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

## **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

### **D.1.5 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]**

---

In order to comply with condition D.1.3, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b) (1).

## **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **D.1.6 Record Keeping Requirements**

---

- (a) To document compliance with Conditions D. 1.3 and D.1.5, the Permittee shall maintain the following records:
- (1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No. 5 and No. 6 Blast Furnaces.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (3) Records of any compliance emissions calculations.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

### **D.1.7 Reporting Requirements**

---

A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.1.3 in order to document compliance with Conditions D. 1.3 and D.1.6 (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:**

(b) No. 7 Blast Furnace process is comprised of the following facilities, process equipment and operation practices:

(Significant Source Modification 089-16966-00316, issued on November 26, 2003 allows for the maximum production rate to increase to 4,417,000 tons per year of molten metal)

- (1) Raw material handling and stockhouse material handling for receiving, storage and delivery of blast furnace raw material. The handling operation has an estimated maximum throughput of 7,704,971 tons of iron ore pellets per year; stored in four (4) storage bins with 8073 tons total capacity; 1,514,604 tons of coke per year, stored in four (4) storage bins with 1314 tons total capacity; and 1,082,736 tons of flux and miscellaneous material per year, stored in six (6) storage bins with 4200 tons total capacity. Emissions are controlled by two (2) baghouses: (1) identified as 168-stockhouse pellet and flux handling baghouse, having a flow rate of 82,500 acfm and (2) identified as 172-stockhouse coke handling baghouse having a flow rate of 27,500 acfm.
- (2) Coke screening operation with emissions controlled by a baghouse, previously identified as 169, having a flow rate of 47,116 acfm and an average screening capacity of 400 tons per hour. (This equipment is not currently operating)
- (3) One (1) blast furnace, identified as No. 7, constructed in 1980 with blast furnace gas processed by a gas cleaning system and equipped with three (3) flares, each with a 1.15 MMBtu per hour igniter capacity of flaring one-third of the maximum generated blast furnace gas through stack 195.
- (4) No. 7 Blast Furnace Casthouse constructed in 1980 with casting emissions controlled by two (2) baghouses: identified as 166 (West baghouse) having a flow rate of 500,000 acfm; and 167 (East baghouse) having a flow rate of 300,000 acfm. Emissions from No. 7 blast furnace casthouse are also controlled by trough and runner covers and hoods over the tap holes and pugh ladle addition points.
- (5) No. 7 Blast Furnace stoves (3 units) using blast furnace gas and natural gas as fuel with an estimated maximum combined heat input capacity of 953 MMBtu/ hr and emissions exhausting through stack 170. Significant Source Modification 089-16966-00316, issued on November 26, 2003 allows for a blast capacity increase and the construction of a fourth (4<sup>th</sup>) stove.
- (6) One (1) Casthouse Roof Monitor 171.
- (7) One (1) coke transfer tower (No.4), identified as 164, installed in 1997, with a an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled by one (1) baghouse, and exhausting inside the tower.
- (8) One (1) coke transfer point, identified as 169, installed in 1997, with an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled.
- (9) Slag pits

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.2.1 Lake County PM10 emission requirements [326 IAC 6.8-2-17]**

Pursuant to 326 IAC 6.8-2-17, PM10 and total suspended particulate (TSP) emissions from the No. 7 Blast Furnace process including the increased capacity shall not exceed the following:

- (a) PM10 emissions from the No. 7 blast furnace stockhouse pellet baghouse (168) shall not exceed 0.0052 grains per dry standard cubic foot and 4.00 pounds per hour.
- (b) TSP emissions from the No. 7 blast furnace stockhouse coke baghouse (172) shall not exceed 0.01 grains per dry standard cubic foot and 2.00 pounds per hour.

- (c) TSP emissions from the No. 7 blast furnace coke screening baghouse (169) shall not exceed 0.007 grains per dry standard cubic foot and 4.200 pounds per hour.
- (d) PM10 emissions from the No. 7 blast furnace Casthouse West canopy baghouse (166) shall not exceed 0.003 grains per dry standard cubic foot and 11.22 pounds per hour.
- (e) TSP emissions from the No. 7 blast furnace Casthouse East baghouse (167) shall not exceed 0.011 grains per dry standard cubic foot and 22.00 pounds per hour.
- (f) PM10 emissions from the stack serving No. 7 blast furnace stove (3 units) stack (170) shall not exceed 0.0076 pounds/MMBtu and 6.32 pounds per hour.

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

**D.2.2 Particulate Matter (PM) [326 IAC 6.8-1-2]**

Pursuant 326 IAC 6.8-1-2, the No. 7 Blast Furnace Casthouse Roof Monitor (171) and No. 7 Blast Furnace flare (195) shall not discharge to the atmosphere any gases which contain particulate matter in excess of 0.03 grains per dry standard cubic foot of exhaust air.

**D.2.3 Opacity [326 IAC 6.8-3]**

Pursuant to 326 IAC 6.8-3, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The opacity for the No. 7 Blast Furnace operations (Casthouse Roof Monitor (171)) shall not exceed fifteen percent (15%), six (6) minute average.

**D.2.4 Opacity**

Pursuant to construction permit 089-9033-00316, issued on February 26, 1998, visible emissions from the coke transfer towers controlled by baghouses (Stack IDS 164 and 169) shall not exceed an opacity of five percent (5%), six minute average.

**D.2.5 Particulate Matter (PM) [326 IAC 2-3]**

Pursuant to construction permit 089-9033-00316, issued on February 26, 1998, PM emissions from the coal and coke handling equipment shall be limited as follows:

- (a) the coke transfer tower (Stack ID 164) shall not exceed 0.075 pounds per hour, and
- (b) the coke transfer point (Stack ID 169) shall not exceed 0.092 pounds per hour.

**D.2.6 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]**

(a) Pursuant to Significant Source Modification (SSM) #089-16966-00316, issued on November 26, 2003 and 326 IAC 2-2-3 (Control Technology Review: Requirements), the carbon monoxide emissions from stack 167 associated with the east baghouse for No.7 Blast Furnace casthouse shall not exceed the following limitation:

Stack ID, associated equipment	CO emissions limitations	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.56	pound/ton of hot metal produced

- (b) Pursuant to SSM #089-21207-00316 and 326 IAC 2-2-3 (PSD BACT), the CO emissions from Stack 166 for Casthouse No. 7 Blast Furnace West Baghouse shall not exceed 2.22 pounds per ton of hot metal produced.
- (c) Pursuant to SSM #089-21207-00316 and 326 IAC 2-2-3 (PSD BACT), the Permittee shall comply with the following for No. 7 Blast Furnace Stoves (Stack 170):

- (1) The CO emissions from the No. 7 blast furnace stoves (stack 170) shall not exceed 3,968 lbs/hr based on a rolling 30-day average.
- (2) No later than January 31, 2009, the Permittee shall install a continuous emissions monitoring system (CEMS) with stack 170 to monitor the CO emissions from No. 7 blast furnace stoves.
- (3) The Permittee shall utilize a computerized monitoring system for the No. 7 blast furnace stoves to assist operational control and energy conservation.
- (4) The Permittee shall complete the stove rebuild project (rebuilding the existing stoves No. 1 through 3) no later than March 30, 2011.
- (5) After the stove rebuild project is complete, the Permittee shall submit a permit application with PSD BACT analysis to re-evaluate the PSD BACT requirements for the No. 7 blast furnace stoves based on monitoring data from the CO CEMS associated with Stack 170.

D.2.7 Operation Condition – Best Available Control Technology [326 IAC 2-2-3]

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003 and 326 IAC 2-2-3 (Control Technology Review: Requirements) the production of hot molten metal from the No.7 Blast Furnace shall not exceed four million four hundred and seventeen thousand (4,417,000) tons per 365 consecutive days, with compliance demonstrated at the end of each day (a consecutive 24 hour period).

D.2.8 Operation Restriction – Curtailment of slag pits operation [326 IAC 2-2][326 IAC 2-3]

In order to make requirements of 326 IAC 2-2 (PSD) not applicable, and pursuant to SSM# 089-21207-00316, the operation of the slag pits at No.7 Blast Furnace shall be curtailed to 662,550 tons of slag processed at these facilities per 12 consecutive month period with compliance demonstrated at the end of each month.

D.2.9 Operational Condition [326 IAC 2-2][326 IAC 2-3]

Pursuant to construction permit 089-9033-00316, issued on February 26, 1998, the requirements below shall be met to obtain the necessary credit for netting requirements:

- (a) The following facilities must be permanently shutdown:
  - (1) the No. 4 BOF Teeming Facility,
  - (2) the foundry operations in the Mold Foundry Building,
  - (3) the No. 3AC Station Boiler 305,
  - (4) the 76 inch hot strip mill,
  - (5) the 100 inch plate mill,
  - (6) the No. 4 slabber mill (soaking pits 1-45), and the No. 4 slabber scarfer.

D.2.10 No.7 Blast Furnace Specific Control Requirements [326 IAC 6.8-7-5]

Pursuant to 326 IAC 6.8-7-5, tapping emissions from the No. 7 blast furnace casthouse shall be controlled by a hood vented to a baghouse. Canopy hoods shall be installed above each of the four (4) furnace tap holes. The hoods shall be ducted to a new three hundred seventy thousand (370,000) actual cubic feet per minute minimum design flow rate baghouse. Each hood shall be located just above the casthouse crane and extend via vertical sheeting to the casthouse roof. The system shall provide a minimum of one hundred eighty-five thousand (185,000) actual cubic feet per minute of air flow (fume capture) to each hood, when the corresponding tap hole is being drilled or plugged.

#### D.2.11 Carbon Monoxide [326 IAC 9-1-2(2)]

---

Pursuant to 326 IAC 9-1-2(2), the No.7 Blast Furnace waste gas stream shall be burned in one of the following: a direct-flame afterburner, boiler or recuperative incinerator. In instances where carbon monoxide destruction is not required, carbon monoxide emissions shall be released at such elevation that the maximum ground level concentration from a single source shall not exceed twenty percent (20%) of the maximum one (1) hour Indiana ambient air quality value for carbon monoxide.

#### D.2.12 Sulfur Dioxide [326 IAC 7-4.1-11]

---

Pursuant to 326 IAC 7-4.1-11(a), the SO<sub>2</sub> emissions from these units shall not exceed the following:

- (a) SO<sub>2</sub> emissions from the No. 7 blast furnace stoves stack (170) shall not exceed 0.195 pounds per MMBtu and 162 lbs/hour.
- (b) SO<sub>2</sub> emissions from the No. 7 blast furnace canopy shall not exceed 0.220 lbs/ton and 50.400 lbs/hour.
- (c) SO<sub>2</sub> emissions from the No. 7 blast furnace casthouse baghouse shall not exceed 0.220 lbs/ton and 50.400 lbs/hour.

### Compliance Determination Requirements

#### D.2.13 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1), (6)]

---

- (a) Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance and Enforcement Branch, the Permittee shall perform PM<sub>10</sub> testing on the No. 7 blast furnace (West baghouse) (166) utilizing a testing method approved by the Commissioner to show compliance with conditions D.2.1, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 and is approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.
- (b) In order to demonstrate compliance with Conditions D.2.6(a) and D.2.6(b), within thirty (30) months from the date of the last valid compliance test, the Permittee shall perform CO testing on Stacks 166 and 167 for Casthouse Baghouses for No. 7 Blast Furnace utilizing a testing method approved by the Commissioner, in accordance with Section C - Performance Testing. These tests shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

#### D.2.14 Carbon monoxide emissions – Compliance Requirements [326 IAC 2-2-3]

---

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003 and 326 IAC 2-2-3 (Control Technology Review: Requirements) the carbon monoxide emissions, associated with the No.7 Blast Furnace shall be minimized, by utilizing the Blast Furnace Gas (BFG) produced at No. 7 Blast Furnace in the stoves at No.7 Blast Furnace or at No. 5 Boiler House. When the excess BFG (not burned in the stoves) cannot be beneficially used for steam generation, it will be burned at the No. 7 Blast Furnace flare stack (195).

#### D.2.15 Particulate Control [326 IAC 2-7-6(6)]

---

- (a) The No. 7 blast furnace stockhouse pellet baghouse (168) for PM control shall be in operation at all times that the stockhouse pellet process is in operation.
- (b) The No. 7 blast furnace stockhouse coke baghouse (172) for PM control shall be in operation when dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when coke material moisture content acts as an alternative dust suppression.

- (c) The No. 7 blast furnace casthouse west baghouse (166) for PM control shall be in operation at all times that the No. 7 blast furnace is casting under normal damper operating configurations. When the west baghouse is inoperable, casting may continue using cross-over control configuration routing control of both canopy and #3 and #4 taphole emissions to the east baghouse (167).
- (d) The No. 7 blast furnace casthouse east baghouse (167) for PM control shall be in operation at all times that the No. 7 blast furnace casthouse is casting under normal damper operating configurations. When the east baghouse is inoperable, casting may continue using cross-over control configuration routing control of both canopy and #1 and #2 taphole emissions to the west baghouse (166).
- (e) Pursuant to construction permit 089-9033-00316, issued on February 26, 1998, the baghouses for the coke handling equipment (Stack IDs 164 and 169) shall be in operation when dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when coke material moisture content acts as an alternative dust suppression.
- (f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

##### D.2.16 Blast Furnace Gas Flare Monitoring [326 IAC 9-1-2][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall install and maintain a monitor to detect the presence of a flame at the flare tips (3 flares) at the No. 7 Blast Furnace flare (195). The presence of a flame at the flare tip shall be monitored at all times when the vapors are being vented to the flare. The monitor shall be equipped with an automatic alarm, which activates when the presence of a flame is not detected during periods when vapors are being vented to the flare. Whenever the alarm is activated, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

##### D.2.17 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D.2.12, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

##### D.2.18 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2-3]

- (a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2-3 (PSD BACT), the Permittee is required to calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring CO emissions rate from the No. 7 Blast Furnace stack (stack 170) in accordance with 326 IAC 3-5 and Condition D.2.19 to demonstrate compliance with Condition D.2.6(c)(1).
- (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.
- (c) The 30-day rolling average calculation shall be conducted as follows:
  - (i) The average CO emissions, for each hour, shall be recorded by completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period anytime the monitor is in service and is not malfunctioning or being calibrated. For any hour in which required maintenance or quality assurance activities occur a valid hour of data shall consist of valid CEM

data from no less than two (2) 15-minute periods within the hour.

- (ii) Daily average CO emissions will be calculated by taking the summation of the quality assured hourly average, obtained by Condition D.2.18(c)(i), and dividing by the number of hours in which there was a quality assured hourly average, to determine the average CO emissions for a particular day.
- (iii) The 30-day rolling average will be calculated each day by summing the daily average CO emission rates for the previous 30 days and dividing by 30.
- (d) Pursuant to 326 IAC 3-5-4(a), if revisions are made to the continuous monitoring standard operating procedures (SOP), the Permittee shall submit updates to the department biennially.

#### D.2.19 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (b) Within 180 days of date of installation of CO CEM system, the Permittee shall develop and implement a CO CEM operation and maintenance plan (O&M Plan) that includes an alternate procedure for quantifying CO emissions any time the CEMs is down for four (4) or more hours. The backup system will include a calibrated online process control CO analyzer on a representative portion of the stack gas flow. The primary CEMS shall be returned to operation as soon as practicable.
- (c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5.

#### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.2.20 Record Keeping Requirements

- (a) To document compliance with Condition D.2.6(c)(1), the Permittee shall maintain the CO CEMS data for the emissions from stack 170 for No. 7 Blast Furnace Stoves in accordance with D.2.18(c).
- (b) To document compliance with Conditions D.2.12 and D.2.17, the Permittee shall maintain the following records:
  - (1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No. 7 Blast Furnace.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (3) Records of any compliance emissions calculations.
- (c) To document compliance with D.2.7, the Permittee shall keep records of molten metal produced at the No.7 Blast Furnace in terms of tons of metal per three hundred and sixty five (365) days. These records shall be kept for at least a period of 60 months.
- (d) To document compliance with D.2.8, the Permittee shall keep records of slag produced at the No.7 Blast Furnace and processed at the slag pits in terms of tons of slag per month. These records shall be kept for at least a period of 60 months.
- (e) In order to document compliance with condition D.2.16, the Permittee shall maintain records of the occurrence of alarm events at the flare and response steps taken to correct the same.

- (f) To document compliance with Conditions D.2.18 and D.2.19, the Permittee shall maintain records, including raw data of all monitoring data and supporting information, for a minimum of five (5) years from the date described in 326 IAC 3-5-7(a). The records shall include the information described in 326 IAC 3-5-7(b).
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.21 Reporting Requirements

---

- (a) A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.2.12 and D.2.17. The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) A semi-annual summary of the information to document compliance with Condition D.2.8 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (c) One (1) Sinter Plant, constructed in 1959, with a an estimated maximum raw material usage of 1.4 million tons per year comprised of the following facilities, process equipment, and operational practices:
- (1) Raw material handling and blend site.
  - (2) One (1) sinter plant windbox, controlled by the main baghouse with emissions exhausting through stack 7.
  - (3) One (1) sinter plant discharge end, controlled by the discharge end baghouse, and one (1) cooler station, partially controlled by the discharge end baghouse, with emissions exhausting through stack 8, installed in 1959.
  - (4) One (1) sinter plant upper screening station, with conveyors, screen hoods, and duct routed to and controlled by the upper screening station baghouse with emissions exhausting through stack 11. This equipment was constructed in 1998.
  - (5) Sinter loading, unloading, and transfer operations.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Lake County PM Emission Requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17, Total Suspended Particulate (TSP) emissions at the Sinter Plant shall not exceed the following:

- (a) TSP emissions from the Windbox baghouse (7) shall not exceed 0.007 grains per dry standard cubic foot and 17.00 pounds per hour.
- (b) TSP emissions from the Discharge end and cooler baghouse (8) shall not exceed 0.01 grains per dry standard cubic foot and 11.70 pounds per hour.

The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

#### D.3.2 Particulate Matter (PM) [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3, the PM10 emissions from the upper screening station baghouse (11) when in operation shall not exceed 0.022 grains per dry standard cubic foot of exhaust air.

#### D.3.3 Lake County Sulfur Dioxide (SO<sub>2</sub>) Emission Limitations [326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a)(13), the SO<sub>2</sub> emissions from the sinter plant windbox (7) shall not exceed 180.000 pounds per hour.

#### D.3.4 Sinter Plant Volatile Organic Compounds (VOCs) [326 IAC 8-13-3]

Pursuant to 326 IAC 8-13-3(b) and (c), the sinter plant windbox exhaust gas VOC emissions shall not exceed the VOC emission limits calculated as follows:

- (a) During the period May 1 through September 30, the total VOC emissions (the seasonal cap) shall not exceed the VOC emission limit of 150,973 pounds of VOC.
- (c) Except as provided in 326 IAC 8-13-3(b)(3), on any day from May 1 through September 30, the sinter plant windbox exhaust VOC emissions (the maximum daily limit) shall not exceed

1162 pounds of VOC emissions.

- (d) On any day from May 1 through September 30 when ozone levels in Lake, Porter or LaPorte Counties are expected to exceed the national ambient air quality standard for ozone (either one (1) hour or eight (8) hour), the sinter plant windbox exhaust VOC emissions (the lower daily limit) shall not exceed the VOC emission limit of 987 lbs VOC/day.
- (e) From October 1 through April 30, sinter plant windbox exhaust gas VOC emissions shall be limited to thirty-six hundredths (0.36) pound per ton of sinter produced. The limit shall be complied with on an operating day average basis.
- (f) Pursuant to 326 IAC 8-13-4(b)(8) and an Ozone Action Plan, the Permittee shall do the following:
  - (1) Use a VOC continuous emissions monitoring system consistent with the continuous emissions monitoring requirements specified in 326 IAC 8-13-8 to ensure compliance with the applicable emission limit and as the approved alternate test method for the sinter plant VOC limit set forth in the Iron and Steel MACT.
  - (2) Measure sinter at the P2 scale.
  - (3) Control mill scale oil and grease content before its removal from scale pits for use at the sinter plant. Control will be achieved by removing a portion of the oil and grease at the scale pits to help achieve compliance with the emission limits in 326 IAC 8-13-3. Removal may consist of skimming, vacuuming or other methods capable of reducing the amount of oil and grease becoming entrained on scale.
  - (4) Maintain the removal efficiency that is currently estimated at 90% at this value. ArcelorMittal USA, Inc. will continue operations to prevent "blinding" of the sinter plant windbox baghouse bags. The continuous emissions monitoring system will provide feedback on VOC emissions, if oil and grease content needs to be controlled. This procedure reflects current operation only and is subject to change while still meeting the emission limits in 326 IAC 8-13-3.
  - (5) Provide timely VOC emissions data to sinter plant operators during production. This information will be used to reduce the likelihood of an exceedance. In the event VOC emissions approach or exceed limits, sinter production will be reduced, burden characteristic will be changed, sinter process equipment operations will be modified or some other activity determined to be effective and that helps prevent an exceedance or reduces the length of exceedance.
  - (6) To predict high ozone days: the Permittee is a participant in IDEM's Partners for Clean Air Program and receives notification of Ozone Action Days from IDEM - OAQ. The Permittee will initiate the ozone action plan. A high ozone level day shall be predicted by the Permittee by using notification from IDEM, OAQ of an ozone action day.

### **Compliance Determination Requirements**

#### **D.3.5 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]**

---

Within thirty (30) months of issuance of this permit, or the date of the last valid compliance test or an alternative date as determined by OAQ, Compliance and Enforcement Branch, the Permittee shall perform SO<sub>2</sub> testing on the sinter plant windbox exhaust (S2A) using methods as approved by the Commissioner, in order to demonstrate compliance with conditions D.3.1 and D.3.3. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 and is approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of

this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance

#### D.3.6 Particulate Control [326 IAC 2-7-6(6)]

- (a) The main and discharge end baghouses for particulate control shall be in operation at all times when the windbox, crusher, and cooler are in operation. During startup situations the windbox exhaust will not be initially directed to the main stack baghouse to prevent condensation damage to the baghouse. The exhaust will be redirected to the baghouse no later than the time at which the exhaust temperature reaches 160 degrees F.
- (b) Pursuant to Ispat's No. 3 Sinter Plant Fugitive Control Project which received an Exempt Construction and Operation Status Letter, CP 089-9176-00316 issued on March 30, 1998, the upper screening station baghouse is only required to operate when required by product fugitives. Therefore, operations may continue using alternative dust suppression operating practices, such as water addition to the sinter bed, during periods of baghouse inoperability, (including but not limited to maintenance, bag failure or other conditions).
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.3.7 Continuous Emissions Monitoring [326 IAC 8-13-8]

- (a) Pursuant to 326 IAC 8-13-8(a)(1) and (2), the Permittee shall demonstrate compliance with the emission limits in D.3.4 by continuously monitoring VOC emissions and
- (b) Comply with the CEM maintenance, operating procedures, quality assurance procedures, and performance specifications in 326 IAC 3-5.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

#### D.3.8 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D.3.3, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.3.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.3.3 and D.3.8, the Permittee shall maintain the following records:
  - (1) Records of the total fuel usage for each type of fuel used, each day at the Sinter Windbox.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (3) Records of any compliance emissions calculations.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.3.10 Continuous Emission Monitoring - Record Keeping and Reporting [326 IAC 8-13]

- (a) The Permittee shall comply with the record keeping and reporting requirements in 326 IAC 3-5 for continuous emissions monitoring system for VOC on sinter windbox (7). In addition, the Permittee shall comply with the following record keeping and reporting requirements:

- (1) For the period May 1 through September 30, maintain the following records:
    - (A) The VOC emitted each day.
    - (B) The cumulative total of VOC emitted.
    - (C) The sinter produced each operating day.
  - (2) Within thirty (30) days of the exceedance of an applicable emission limit in 326 IAC 8-13-3, submit a report containing the following:
    - (A) The name and location of the source.
    - (B) The nature of the exceedance.
    - (C) The date of the occurrence.
    - (D) The cause of the exceedance, such as, but not limited to, production rates or characteristics of the sinter burden.
    - (E) The corrective action taken according to the corrective action plan in 326 IAC 8-13-4(b)(5).
- (b) Submit the CEM certification reports according to the procedures and schedule in 326 IAC 3-5.

#### D.3.11 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MMBtu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.3.3 and D.3.9 (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.4 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:
- (1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).
  - (2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.
  - (3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.
  - (4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187.
  - (5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.4.1 Lake County PM10 Emission Requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2, PM10 emissions from the PCI system shall not exceed the following:

- (a) System A-conveyor transfer with baghouse control (185) shall not exceed 0.003 grains per dry standard cubic foot, 0.17 pounds per hour
- (b) System C-conveyors and raw coal bins with baghouse control (186) shall not exceed 0.003 grains per dry standard cubic foot, 0.23 pounds per hour
- (c) System D-coal pulverizer with cyclone and baghouse control (187) shall not exceed 0.0015 grains per dry standard cubic foot, 0.93 pounds per hour
- (d) System E-coal pulverizer with cyclone and baghouse control (188) shall not exceed 0.0015 grains per dry standard cubic foot, 0.93 pounds per hour
- (e) System F-No. 7 blast furnace coal storage bin No. 1 with baghouse control (189) shall not exceed 0.003 grains per dry standard cubic foot, 0.09 pounds per hour
- (f) System G-No. 7 blast furnace coal storage bin No. 2 with baghouse control (190) shall not exceed 0.003 grains per dry standard cubic foot, 0.09 pounds per hour

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

#### D.4.2 Particulate Matter (PM) [326 IAC 6.8-1-2]

---

Pursuant 326 IAC 6.8-1-2, the Coal unloading system exhausting to stack (192) shall not discharge to the atmosphere any gases which contain particulate matter in excess of 0.03 grains per dry standard cubic foot of exhaust air.

### Compliance Determination Requirements

#### D.4.3 Particulate Control [326 IAC 2-7-6(6)]

---

- (a) In order to comply with D.4.1, the baghouses for PM<sub>10</sub> control shall be in operation and control the PCI Systems A and C. When dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when coal material moisture content acts as an alternative dust suppression. Daily visible emission notations shall be conducted at transfer points when the baghouses are not operating.
- (b) Pursuant to CP 089-2016-00316 issued on August 22, 1991, the equipment listed in the start of this section shall be operated and maintained in accordance with the manufacturer's specifications.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.4.4 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

---

- (a) Visible emission notations of the Coal pulverizer D baghouse (187) and Coal pulverizer E baghouse (188) exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) In the case of batch or discontinuous operations, readings shall be taken during normal operations.
- (c) If visible emissions are observed, and corrective actions cannot be initiated within one hour of the observation, the Permittee shall record the reason that corrective action cannot be taken within the hour and an employee certified to perform an EPA Method 9 evaluation shall determine whether opacity exceeds twenty percent (20%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4; and:
  - (1) If the opacity exceeds twenty percent (20%) per Method 9, the Permittee shall shut down the associated process as soon as practicable, unless either: (1) the Permittee is able to bring opacity to under twenty percent (20%) per Method 9 within a reasonable period of time; or (2) the situation qualifies as an "emergency" under 326 IAC 2-7-1(12). If the Permittee continues to operate the associated process after determining that opacity exceeds twenty percent (20%) per Method 9, then the Permittee shall perform an additional Method 9 reading once every four daylight hours until opacity is returned to under twenty percent (20%). Once the Permittee is able to return opacity to under twenty percent (20%) per this subsection (d), then Permittee shall perform response actions according to subsection (c)(1), (2) and/or (3), as appropriate.
  - (2) If opacity does not exceed twenty percent (20%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process downtime. Repairs shall be scheduled as expeditiously as practical, based on the inspection results.

- (3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee must notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.
- (d) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

**D.4.5 Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

The Permittee shall record the pressure drop across the baghouses used in conjunction with the Coal pulverizer D (187) and Coal pulverizer E (188) at least once per day when the coal pulverizers are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.25 -1.5 kPa or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.4.6 Record Keeping Requirements**

- (a) In order to document compliance with Condition D.4.4, the Permittee shall maintain records of once per day visible emission notations of the Coal pulverizer D baghouse (187) and Coal pulverizer E baghouse (188) exhausts.
- (b) In order to document compliance with Condition D.4.5, the Permittee shall maintain the records once per day of the pressure drop across the baghouse during normal operation.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

## SECTION D.5 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (e) The No. 2 Basic Oxygen Furnace (BOF) Shop, comprised of the following facilities, process equipment, and operational practices:
- (1) Raw material handling, ladle additive truck hopper loading system having an estimated maximum throughput of 328,000 tons per year of alloy and flux. Emissions from the truck hopper controlled by a baghouse, which has a flow rate of 75,000-acfm exhausting through stack 150. Emissions from the alloy and flux storage and handling system are controlled by a baghouse, which has a flow rate of 50,000-acfm, exhausting through stack 151. Both baghouses were constructed in 1974.
  - (2) One (1) Hot metal station containing reladling, desulfurization, and slag skimming operations having an estimated maximum capacity of 4,029,600 tons of hot metal per year. Captured emissions from the hot metal station and charging aisle are controlled by a baghouse having a flow rate of 360,000-acfm, exhausting through stack 152. Original construction was 1974 and an upgrade was completed in August 1994 as part of a consent decree.
  - (3) Two (2) BOFs, identified as No. 10 and No. 20, and operations including charging, oxygen blowing, tapping, and alloy addition with a total estimated maximum capacity of 4,543,600 tons of hot metal and scrap per year. Captured emissions controlled by two (2) off-gas scrubber systems with flares having a flow rate of 1,500,000-acfm each, exhausting through flare stacks 147 and 148. Construction commenced on this equipment in 1970. Uncaptured emissions exhausting through roof monitor 153 and charging and miscellaneous furnace emissions exhausting through a secondary ventilation scrubber having a flow rate of 194,000-acfm, exhausting through stack 149. The Off-gas scrubber systems were constructed in 1974 and the Secondary Vent scrubber was replaced in 2003.
  - (4) One (1) ladle metallurgy facility (LMF) station consisting of alloy addition, electric arc reheat, slag skimming, and raw material handling specifically for the metallurgy station with an estimated maximum throughput of 4,029,600 tons per year of steel. Captured emissions are controlled by a baghouse having a flow rate of 135,000-acfm, exhausting through stack 154. This equipment was constructed in 1985.
  - (5) One (1) Continuous casting operations consisting of slab casters, and three (3) torch cutoff machines. Leaded emissions from the casters exhaust through the caster fume baghouse, which has a flow rate of 171,000 acfm, exhausting through stack 159. Steam from the water spray cooling exhausts through three (3) vents along the caster, identified as stacks 160, 161, and 162. Fugitive emissions from the casting operations exhaust through a roof monitor, identified as 158. This equipment was constructed in 1985. (Bloom caster at this site is permanently shutdown)
  - (6) A tundish dump and repair station with leaded emissions controlled by a baghouse, which has a flow rate of 50,000 acfm, exhausting through stack 156. This equipment was constructed in 1989.
  - (7) Miscellaneous natural gas combustion used for ladle preheating, exhausting through stack 157, and tundish and ladle shroud preheating and drying, exhausting through No.2 BOF Shop Roof Monitors 155.
  - (8) Slag skimming into slag pots.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

### **D.5.1 Lake County PM Emission Requirements [326 IAC 6.8-2-17]**

---

Pursuant to 326 IAC 6.8-2-17, Total Suspended Particulates (TSP) emissions from the BOF Shop operations shall not exceed the following:

- (a) TSP emissions from the No. 2 BOF truck and ladle hopper baghouse (150) shall not exceed 0.0052 grains per dry standard cubic foot and 0.800 pounds per hour.
- (b) TSP emissions from the No. 2 BOF alloy and flux storage baghouse (151) shall not exceed 0.0052 grains per dry standard cubic foot and 0.530 pounds per hour.
- (c) TSP emissions from the No. 2 BOF charging aisle reladling and desulfurization baghouse (152) shall not exceed 0.011 grains per dry standard cubic foot and 28.30 pounds per hour.
- (d) TSP emissions from the No. 2 BOF No. 10 off-gas scrubber stack (147) shall not exceed 0.058 pounds per ton and 16.00 pounds per hour.
- (e) TSP emissions from the No. 2 BOF No. 20 off-gas scrubber stack (148) shall not exceed 0.058 pounds per ton and 16.00 pounds per hour.
- (f) TSP emissions from the No. 2 BOF secondary ventilation system scrubber (149) shall not exceed 0.015 grains per dry standard cubic foot and 12.00 pounds per hour.
- (g) TSP emissions from the No. 2 BOF ladle metallurgical station baghouse (154) shall not exceed 0.0052 grains per dry standard cubic foot and 2.00 pounds per hour.

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

### **D.5.2 Opacity [326 IAC 6.8-3]**

---

Pursuant to 326 IAC 6.8-3, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The opacity limits for the BOF operations shall be limited as follows:

- (a) The opacity for the No. 2 BOF truck and ladle hopper baghouse (150) shall not exceed five percent (5%), three (3) minute average.
- (b) The opacity for the No. 2 BOF alloy and flux storage baghouse (151) shall not exceed five percent (5%), three (3) minute average.
- (c) The opacity for the No. 2 BOF charging aisle reladling and desulfurization baghouse (152) shall not exceed five percent (5%), three (3) minute average.
- (d) The opacity for the No. 2 BOF No. 10 off-gas scrubber stack (147) shall not exceed twenty percent (20%), six (6) minute average.
- (e) The opacity for the No. 2 BOF No. 20 off-gas scrubber stack (148) shall not exceed twenty percent (20%), six (6) minute average.
- (f) The opacity for the No. 2 BOF roof monitor (153) shall not exceed twenty percent (20%), three (3) minute average.
- (g) The opacity for the No. 2 BOF secondary ventilation system scrubber (149) shall not exceed twenty percent (20%), six (6) minute average.

- (h) The opacity for the No. 2 BOF ladle metallurgical station baghouse (154) shall not exceed five percent (5%), three (3) minute average.

**D.5.3 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]**

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No.2 BOF Furnace Roof Monitor (153), Continuous casting operations (160, 161, 162), No. 2 BOF Continuous Caster Roof Monitor (158), ladle reheating (157) and No. 2 BOF Shop Roof Monitor (155) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

**D.5.4 Sulfur Dioxide (SO<sub>2</sub>)[326 IAC 7-4.1-11]**

Pursuant to 326 IAC 7-4.1-11(a), the sulfur dioxide emission rate from these units shall not exceed the following:

- (a) SO<sub>2</sub> emissions from the stack serving No. 2 BOF secondary vent (149) shall not exceed 0.014 lbs/ton and 6.440 lbs/hour.
- (b) SO<sub>2</sub> emissions from the stack serving No. 2 BOF charge aisle and HMS baghouse (152) shall not exceed 0.151 lbs/ton and 69.460 lbs/hour.
- (c) SO<sub>2</sub> emissions from the stack serving No. 2 BOF ladle metal baghouse (154) shall not exceed 0.025 lbs/ton and 11.500 lbs/hour.

**D.5.5 Carbon Monoxide [326 IAC 9-1-2(2)]**

Pursuant to 326 IAC 9-1-2(2), the No. 2 BOF off-gas waste gas stream shall be burned in one of the following: a direct-flame afterburner, boiler or recuperative incinerator. In instances where carbon monoxide destruction is not required, carbon monoxide emissions shall be released at such elevation that the maximum ground level concentration from a single source shall not exceed twenty percent (20%) of the maximum one (1) hour Indiana ambient air quality value for carbon monoxide.

**D.5.6 Operation restriction – shutdown of 2 A Blooming Mill and 21 inch Bar Mill [326 IAC 2-3] [326 IAC 2-2]**

- (a) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, 326 IAC 2-3 and 326 IAC 2-2, the 2A Blooming Mill and 21 inch Bar Mill shall be shutdown permanently before the restart of the No.7 Blast Furnace operation after the completion of the reline project in 2003. In addition within 180 days of restart of the No.7 Blast Furnace operation after the reline project in 2003, these emissions units shall be physically disconnected and permanently removed from service.
- (b) On and after the date of issuance of this permit, the Permittee shall request the IDEM, OAQ to remove the 2A Blooming Mill and 21 inch Bar Mill and all the associated equipment permanently from the emissions inventory maintained by the State.
- (c) This condition supercedes all conditions in previous permits that allow the operation of the 2A Blooming Mill and 21 inch Bar Mill and its associated equipment.

**D.5.7 Operation Restriction – Relocation of Leaded Steel Production [326 IAC 2-3] [326 IAC 2-2]**

Pursuant to Significant Source Modification No.: 089-25598-00316, the No. 2 BOF Shop shall not produce leaded steel. The production of leaded steel shall occur at the No. 1 EAF Shop.

**Compliance Determination Requirements**

**D.5.8 Testing Requirements [326 IAC 2-7-6(1), (6)] [326 IAC 2-1.1-11]**

Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance and Enforcement Branch, the Permittee shall perform TSP and opacity testing on the No.2 BOF No.10 and No. 20 furnaces (stacks 147 and 148) utilizing a testing method approved by the Commissioner to show compliance with conditions D.5.1 and 5.2, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-

3-1 and is approved by the Commissioner. This test shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

#### D.5.9 Particulate Control [326 IAC 2-7-6(6)]

- (a) The No. 2 BOF truck and ladle hopper baghouse (150) for PM control shall be in operation at all times that any alloy unloading or handling is in process in the related controlled areas. When the baghouse is not operating, operations may continue using the following alternative procedures.
- (i) Lime shall not be off loaded using rear dumping trucks. Bottom off loading trailers shall be used.
- (b) The No. 2 BOF alloy and flux storage baghouse (151) for PM control shall be in operation at all times that any alloy unloading or handling is in process in the related controlled areas.
- (c) The No. 2 BOF charging aisle reladling and desulfurization baghouse (152) for PM control shall be in operation at all times that the Hot metal station is in operation.
- (d) The No. 2 BOF secondary ventilation system scrubber (149) for PM control shall be in operation at all times that either the No. 10 or No. 20 furnace is operating under normal conditions. When the No. 10 or No. 20 furnace is operating and the secondary ventilation scrubber is not operating, operations may continue using the following alternative BOF charging procedures.
- (1) The charging aisle emission control system shall be in operation.
- (2) Each hot metal charge shall be greater than 120 seconds in duration.
- (e) The No. 2 BOF ladle metallurgical station baghouse (154) for PM control shall be in operation at all times that the ladle metallurgy facility station is in operation.
- (f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### D.5.10 Particulate Matter (PM) and Carbon Monoxide (CO)

No. 2 BOF shop No. 10 BOF off-gas scrubber (147) and No. 20 BOF off-gas scrubber (148) system and the flare equipped with flare igniter for carbon monoxide control shall be in operation at all times that respective furnaces are in operation.

#### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

#### D.5.11 No.2 BOF Flare Monitoring [326 IAC 9-1-2][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall install and maintain a monitor to detect the presence of a flame at the flare at the No. 2 BOF shop, 10 BOF (147), and 20 BOF (148). The presence of a flame at the flare tip shall be monitored at all times when the vapors are being vented to the flare. The monitor shall be equipped with an automatic alarm, which activates when the presence of a flame is not detected during periods when vapors are being vented to the flare. Whenever the alarm is activated, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

**D.5.12 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]**

---

In order to comply with condition D.5.4, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.5.13 Record Keeping Requirements**

---

- (a) To document compliance with Conditions D.5.4 and D.5.12, the Permittee shall maintain the following records:
- (1) Records of the total fuel usage for each type of fuel used, each day at the No. 2 BOF.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (3) Records of any compliance emissions calculations.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**D.5.14 Reporting Requirements**

---

A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.5.4, in order to document compliance with Conditions D. 5.4 and D.5.13(a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.6 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (f) No.4 Basic Oxygen Furnace (BOF) comprised of the following facilities, process equipment, and operational practices:
- (1) Flux, alloy and waste oxide briquettes (WOB) unloading, hopper house and storage/handling facility.
  - (2) Scrap metal unloading/storage (scrap yard) and scrap metal charging box.
  - (3) Two (2) Hot metal transfer and desulfurization operations having an estimated maximum capacity of 4,222,320 tons of hot metal per year with captured emissions controlled by two (2) baghouses having flow rates of 190,000 and 220,000 acfm, exhausting through stacks 26 and 27. This equipment was constructed in 1977.
  - (4) Two (2) BOFs, identified as No. 50 and No. 60 and operations including charging, blowing, tapping, flux and alloy additions, and slag skimming with a total estimated maximum capacity of 5,676,366 tons of hot metal and scrap per year with uncaptured emissions exhausting through a roof monitor (stack 29), and captured emissions controlled by a four (4) off-gas scrubber system, exhausting through stack 38. This equipment was constructed in 1966 and modernized in 2007. Charging, tapping, and miscellaneous furnace emissions are controlled by a secondary ventilation baghouse having a flow rate of 600,000 acfm, exhausting through stack 37. This equipment was constructed in 1977 and modified in 1996.
  - (5) Raw material handling system for the RHOB facility, including hopper house, alloy and flux storage bins having an estimated maximum throughput of 4,700,000 tons per year and dust emissions controlled by a baghouse having a flow rate of 48,100 acfm and exhausting through stack 33.
  - (6) One (1) RHOB vacuum degasser with natural gas-fired flare for exhaust gas control with an estimated maximum throughput of 4,686,600 tons/year of steel, exhausting through stack 32. This equipment was constructed in 1987.
  - (7) Ladle and tundish preheaters (stack 36).
  - (8) Two (2) argon stirring stations and one (1) continuous caster with tundish, caster mold exhausting through one (1) mold fume baghouse (stack 214), and casting machine with cutoff, with steam vents exhausting through stacks 24 and 25.
  - (9) Torch cutoff exhausting into the building (stack 31).
  - (10) Maintenance and miscellaneous operations associated with the BOF.
  - (11) Furnace Additives Transfer House Bagoes, exhausting inside the buildings (stacks 28 and 35).
  - (12) Slag dumping.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.6.1 Lake County PM10 emission requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17, Total Suspended Particulate (TSP) emissions from the No. 4 BOF operations shall not exceed the following:

- (a) TSP emissions from the No. 4 BOF hot metal transfer and desulfurization baghouses stack (26 and 27) shall not exceed 0.0052 grains per dry standard cubic foot and 8.26 pounds per hour
- (b) TSP emissions from the No. 4 BOF shop off-gas scrubber stack (38) shall not exceed 0.187 pounds per ton and 100.00 pounds per hour.
- (c) TSP emissions from the No. 4 BOF shop secondary ventilation system baghouse (37) shall not exceed 0.006 grains per dry standard cubic foot and 22.30 pounds per hour.
- (d) TSP emissions from the No. 4 BOF shop vacuum degassing baghouse (33) shall not exceed 0.01 grains per dry standard cubic foot and 4.280 pounds per hour.

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

#### D.6.2 Opacity [326 IAC 6.8-3]

---

Pursuant to 326 IAC 6.8-3, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The visible emissions from the BOF operations shall be limited as follows:

- (a) Opacity from the No. 4 BOF hot metal transfer and desulfurization baghouses (26 and 27) shall not exceed five percent (5%), three (3) minute average.
- (b) Opacity from the No. 4 BOF shop roof monitor (29) shall not exceed twenty percent (20%), three (3) minute average.
- (c) Opacity from the No. 4 BOF shop off-gas scrubber (38) shall not exceed twenty percent (20%), six (6) minute average.
- (d) Opacity from the No. 4 BOF shop secondary ventilation system baghouse (37) shall not exceed five percent (5%), three (3) minute average.
- (e) Opacity from the No. 4 BOF shop vacuum degassing material handling baghouse (33) shall not exceed five percent (5%), three (3) minute average.

#### D.6.3 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

---

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No.4 BOF Furnace Roof Monitor (29), RHOB vacuum degassers (32), ladle reheating (36), mold fume baghouse (stack 214), continuous caster (24 and 25) and Furnace Additive Hopper baghouse (35) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.6.4 Sulfur Dioxide (SO<sub>2</sub>)[326 IAC 7-4.1-11]

---

Pursuant to 326 IAC 7-4.1-11(a), the sulfur dioxide emission rate from these units shall not exceed the following:

- (a) SO<sub>2</sub> emissions from the stack serving No. 4 BOF HMS baghouse S and N (26 and 27) shall not exceed 0.151 lbs/ton and 36.391 lbs/hour.
- (b) SO<sub>2</sub> emissions from the stack serving No. 4 BOF secondary vent stack (37) shall not exceed 0.001 lbs/ton and 0.535 lbs/hour.

#### D.6.5 PM10 and PM2.5 PSD Minor Limits [326 IAC 2-2]

---

Prior to the operation of the No. 504 Boiler and thereafter:

- (a) The PM10 and PM2.5 emissions from the No. 4 off-gas scrubber system, exhausting through stack 38, associated with the two (2) BOFs, identified as No. 50 and No. 60 shall

be limited to 40.79 pounds hour and 39.57 pounds per hour, respectively. These limits are for filterable PM10 and filterable PM2.5 only.

- (b) The No. 4 BOF Shop Mold Fume Exhaust baghouse shall be in operation at all times that the molds are in operation and the PM10 and PM2.5 emissions from this Baghouse shall be limited to 0.41 pound per hour for each pollutant. These limits are for filterable PM10 and filterable PM2.5 only.
- (c) The Permittee shall not utilize the bottom stirring process (installed during the vessel reline in 2008) at the No.60 BOF vessel in the No.4 Steel Production Shop (No.4 SP) in support of the No. 504 Boiler project.
- (d) The total molten steel transferred from the No.4 SP to the LMF and Casters at No.2 Steel Production Shop (No.2 SP) using the rail link constructed in 2009 (designated as Project X) shall not exceed 3,522,720 tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with this Condition, including Condition D.13.5, Condition D.12.6 of this permit, Condition D.1.6, Condition D.7.5 in SPM 089-29300-00536 of ArcelorMittal Indiana Harbor, LLC (West Plant), Conditions D.1.3, D.3.1 and D.3.2 in SPM No. 089-29271-00356 of Beemsterboer Slag Corporation, and Condition D.1.3 in SPM No. 089 29316-00537 of Beemsterboer Slag Corporation shall result in total emission reduction of PM10, PM2.5, SO2, NOx and CO and shall render 326 IAC 2-2, PSD not applicable to the No. 504 Boiler permitted in SSM 089-28917-00316.

## Compliance Determination Requirements

### D.6.6 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Conditions D.6.1 and D.6.2, the Permittee shall perform TSP and opacity testing on the No. 4 BOF (stack 38) utilizing methods as approved by the Commissioner at least once every two and one half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (b) Prior to startup of the No. 504 Boiler, the Permittee shall perform filterable PM testing on the No. 4 off-gas scrubber system, associated with the two (2) BOFs, identified as No.50 and No.60 to demonstrate compliance with D.6.5(a) for the filterable PM10 and filterable PM2.5 emission limits using the ratio of 67% for PM10 to PM (PM10/PM) and the ratio of 65% for PM2.5 to PM (PM2.5/PM). This testing shall be conducted utilizing methods as approved by the Commissioner at least once every two and one half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.
- (c) Prior to startup of the 504 Boiler, the Permittee shall perform filterable PM 2.5 and filterable PM10 testing on the baghouse associated with No. 4 BOF Caster Mold to demonstrate compliance with Condition D.6.5(b). This testing shall be conducted utilizing methods as approved by the Commissioner at least once every two and one half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

#### D.6.7 Particulate Control [326 IAC 2-7-6(6)]

---

- (a) The hot metal transfer and desulfurization operation baghouses (26 and 27) for PM control shall be in operation at all times that any of the respective processes are in operation.
- (b) The BOF and process off-gas scrubber system (38) and secondary ventilation baghouse (37) shall be in operation at all times that either the No. 50 or No. 60 furnaces are operating under normal conditions.
- (c) Raw material handling for RHOB facility baghouse (33) shall be in operation at all times that any of the processes are in operation.
- (d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

#### D.6.8 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]

---

In order to comply with condition D.6.4, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

#### D.6.9 Visible Emissions Notations

---

Prior to the operation of the No. 504 Boiler and thereafter:

- (a) Visible emission notations of the caster mold baghouse stack 214 shall be performed. These notations shall be taken once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee, including trained personnel under contract with the source, is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.6.10 Baghouse Monitoring

---

Prior to the operation of the No. 504 Boiler and thereafter, the Permittee shall record the pressure drop across the baghouse at least once per day when the associated No. 4 BOF Caster Mold is in operation. When for any one reading the pressure drop range is outside the normal range of 4.5 to 10 inches of water or the range established during the latest stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A flow rate that is below the above mentioned minimum, or pressure drop that is outside the range is not a deviation from this permit. Failure to take response steps shall be considered a deviation

from this permit.

The instruments used for determining the flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once semi-annually.

**D.6.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

---

For a single compartment baghouse-controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.6.12 Record Keeping Requirements**

---

- (a) To document the compliance status with Conditions D.6.4 and D.6.8, the Permittee shall maintain the following records:
  - (1) Records of the total fuel usage for each type of fuel used, each day at the No. 4 BOF.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (3) Records of any compliance emissions calculations.
- (b) Prior to the operation of the No. 504 Boiler and thereafter, in order to document the compliance status with Condition D.6.9 the Permittee shall maintain records of once per day visible emission notations of the caster mold baghouse (214) stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (c) Prior to the operation of the No. 504 Boiler and thereafter, to document the compliance status with condition D.6.10, the Permittee shall maintain the records once per day of the pressure drop across the caster mold fume baghouse during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).
- (d) To document the compliance status with condition D.6.5(d), the Permittee shall maintain the records of the molten steel that Project X transferred from the No.4 SP to the LMF and Casters at No.2 SP using the rail link constructed in 2009.

Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

**D.6.13 Reporting Requirements**

---

A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.6.4, in order to document compliance with Conditions D.6.4 and D.6.12(a). Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The quarterly report shall be submitted no later than thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official,” as defined by 326 IAC 2-7-1 (34).

A quarterly report to document the compliance status with Condition D.6.5(d) shall be submitted for the molten steel that Project X transferred from the No.4 SP to the LMF and Casters at No.2 SP using the rail link constructed in 2009. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The quarterly report shall be submitted no later than thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

## SECTION D.7 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

**No. 1 Lime Plant was constructed in 1973 with an estimated maximum capacity of 569,400 tons per year of lime comprised of the following facilities, process equipment, and operational practices:**

- (1) Limestone unloading, storage and screening area.
- (2) Two (2) Limestone preheaters, two (2) rotary kilns with an estimated maximum heat input rate of 284 MMBtu/hr fueled by natural gas or residual fuel oil, with exhaust from kilns routed back to preheaters and then to a set of multiclones. The remaining emissions from the kilns and preheaters are controlled by two (2) baghouses ("213-1" & "213-2") exhausting through stacks 45 and 49.
- (3) Dust fines are sent to two dust bins, with emissions controlled by baghouses ("217-1" & "217-2") and exhausting through stack 46.
- (4) Ten (10) storage silos receive an estimated maximum of 569,400 tons per year of finished lime, with fines controlled by lime handling baghouses ("413") and exhausting through stack 47.
- (5) Fugitive control project including loadout spout on rejection bin controlled by existing kiln baghouse, preheater area enclosure around two (2) kiln feed hood/ram loadout dribbles, preheater area loading spouts for truck loading with displaced air controlled by existing kiln baghouse and ten (10) loading spouts at the truck loadout area with exhaust controlled by loadout baghouse ("408") and exhausting through stack 48. Lime product handling emissions from transfer points between both sides of lime cooler rotary valves and lime product/reject handling belts inside the firing building are controlled by a baghouse ("420") exhausting through stack 50. This equipment was upgraded in 1997.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.7.1 Lake County PM10 emission requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17, PM10 emissions from the No. 1 Lime Plant operations shall not exceed the following:

- (a) Combined PM<sub>10</sub> emissions from the No.1 and No. 2 Kiln baghouses stacks (45) and (49) shall not exceed 0.110 pounds per ton and 7.149 pounds per hour
- (b) PM10 emissions from the Storage Silo baghouse (47) shall not exceed 0.085 pounds per ton and 5.530 pounds per hour

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

#### D.7.2 Sulfur Dioxide [326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a), the allowable sulfur dioxide (SO<sub>2</sub>) emission rate from the No. 1 and No. 2 Kiln baghouses (45 & 49) shall not exceed 0.46 lb/MMBtu and 32.08 lbs/hour.

## Compliance Determination Requirements

### D.7.3 Particulate Control [326 IAC 2-7-6(6)]

---

- (a) The No.1 and No. 2 Kiln baghouses (45), (49), Storage Silo baghouse (47), micro-pulse baghouse (46) and Truck loadout baghouse (48) for PM control shall be in operation and control emissions from the No. 1 Lime Plant operations at all times that the No. 1 Lime Plant is in operation and associated equipment is also in operation. Lime kiln operation begins when stone is charged to the kiln.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

## Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

### D.7.4 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

---

The Permittee shall record the pressure drop across the Storage Silo baghouse (47) at least once per day when the No.1 and No. 2 Kiln and Storage Silo are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 9.0 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

### D.7.5 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

---

- (a) For a single compartment baghouses (217-1, 217-2 exhausting to stacks 46-1 and 46-2) controlling emissions from the dust bins, in the event that bag failure is observed, the feed to the dust bin controlled by the failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouses (408 exhausting to stack 48) controlling emissions from the truck loadout only from the ten silos, in the event that bag failure is observed, the feed controlled by the failed unit shall be shut down immediately during truck loadout until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (c) For a single compartment baghouses (413 exhausting to stack 47) controlling fugitives from transfer points above the silos inside the enclosed silo building, in the event that bag failure is observed, the feed controlled by the failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (d) For a single compartment baghouses (420 exhausting to stack 47) controlling fugitives from project/reject belts from inside the firing building, in the event that bag failure is observed, the feed to the feed controlled by the failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

D.7.6 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D.7.4, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

D.7.7 Record Keeping Requirements

- (a) To document compliance with Condition D.7.4, the Permittee shall maintain the records of the pressure drop across the baghouses once per day during normal operation.
- (b) To document compliance with Conditions D.7.4 and D.7.6, the Permittee shall maintain the following records:
  - (1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No.1 and No. 2 Kilns.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (3) Records of any compliance emissions calculations.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.8 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MMBtu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.7.4 in order to document compliance with Conditions D.7.4 and D.7.7(c). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.8 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (h) No. 1 Electric Arc Furnace comprised of the following facilities, process equipment, and operational practices:
- (1) Bulk alloy handling: Raw material unloading, piling, and transporting of scrap metal, fluxes, and alloys.
  - (2) Raw material charging to the electric arc furnace.
  - (3) One (1) electric arc furnace with eccentric bottom tapping (EBT), having an estimated maximum annual capacity of 975,000 tons with emissions controlled by a baghouse having a flow rate of 500,000 acfm exhausting through baghouse roof monitor (141) commencing operation in 1970 and upgraded in 1996.
  - (4) One (1) ladle metallurgical facility (LMF) station constructed in 1989 with a maximum annual capacity of 975,900 tons with particulate emissions controlled by a baghouse having a flow rate of 40,000 acfm and a Wet Gas Scrubber for Sulfur Dioxide (SO<sub>2</sub>) emissions control exhausting through stack 143.
  - (5) Five (5) natural gas ladle preheaters constructed in 1990, each has one (1) or two (2) burners with a 15 MMBtu per hour combined maximum heat input and emissions uncontrolled exhausting through stack 140.
  - (6) One (1) continuous casting tundish and one (1) continuous casting mold operations controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 137.
  - (7) Cooling operation exhausting through stack 145.
  - (8) Slag handling operations.
  - (9) EAF Shop Roof Monitor (stack 142).
  - (10) One (1) leaded steel torch cutoff operation controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 138.
  - (11) One (1) leaded steel LMF ladle dump and repair station controlled by a baghouse during breakout and removal of lead-contaminated refractory materials having a flow rate of 100,000 acfm and exhausting through stack 136.
- (i) Direct Reduced Iron (DRI) storage and conveying system constructed in 2001, comprised of the following facilities, process equipment, and operational practices:
- (1) One (1) enclosed truck/trailer unloading area identified as 213 with a maximum throughput of 400,000 tons per year of DRI.
  - (2) A DRI conveyor system consisting of:
    - (A) One (1) 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents.
    - (B) One (1) horizontal trough belt stocking conveyor.
    - (C) Multiple Delivery Conveyors.
  - (3) Emission control system for (1) and (2) to remove particulate matter consisting of:
    - (A) Bin Vent Filter No. 1 (210)
    - (B) Bin Vent Filter No. 2 (211)
    - (C) Bin Vent Filter No. 3 (212)

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

## **Emission Limitations and Standards [326 IAC 2-7-5(1)]**

### **D.8.1 Lake County PM10 emission requirements [326 IAC 6.8-2]**

---

Pursuant to 326 IAC 6.8-2-17, PM10 emissions from the electric arc furnace operations shall not exceed the following:

- (a) PM10 emissions from the electric arc furnace shop ladle metallurgical station baghouse (143) shall not exceed 0.01 grains per dry standard cubic foot and 0.820 pounds per hour.
- (b) PM10 emissions from the electric arc furnace shop direct shell evacuation system baghouse roof monitor (141) shall not exceed 0.0052 grains per dry standard cubic foot and 17.14 pounds per hour.

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving."

### **D.8.2 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]**

---

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the regenerative horizontal ladle preheaters (140), continuous casting and cooling operations (138 and 145), EAF Shop Roof Monitor (142) and DRI Bin Vent Filters (210-212) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

### **D.8.3 Opacity [326 IAC 6.8-3]**

---

Pursuant to 326 IAC 6.8-3, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The opacity from the electric arc furnace operations shall be limited as follows:

- (a) Opacity from the electric arc furnace direct shell evacuation system baghouse (141) shall not exceed five percent (5%), six (6) minute average.
- (b) Opacity from the electric arc furnace shop roof monitor (142) shall not exceed twenty percent (20%), six (6) minute average.
- (c) Opacity from the electric arc furnace shop ladle metallurgical station baghouse (143) shall not exceed five percent (5%), six (6) minute average.

### **D.8.4 Sulfur Dioxide Emissions Limitations [326 IAC 2-2][326 IAC 2-3]**

---

Pursuant to Construction Permit 089-3630-00316 issued March 20, 1995 and SSM 089-20235-00316 issued July 11, 2005, the sulfur dioxide (SO<sub>2</sub>) emissions from the No. 1 electric arc furnace (EAF) and ladle metallurgy facility (LMF) shall be limited as follows:

- (a) SO<sub>2</sub> emissions from the EAF shall be less than 336.7 tons per 12 consecutive months with compliance determined at the end of each month, based on the total tons of each series steel produced times the pounds of SO<sub>2</sub> per ton of steel (pounds of SO<sub>2</sub> divided by tons of steel);
- (b) The EAF pounds of SO<sub>2</sub> divided by tons of steel for calculation purposes shall be: 0.643 pounds of SO<sub>2</sub> per ton of steel for non-sulfur bearing heats, 1.091 pounds of SO<sub>2</sub> per ton of steel for 1100 series steel, and 2.312 pounds of SO<sub>2</sub> per ton of steel for 1200 series steel, and,
- (c) The amount of molten steel to be processed in the LMF (ss-2) shall not exceed 792,077 tons per year and SO<sub>2</sub> shall not exceed 0.107 pounds per ton.

The above limits will maintain emissions below 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) level requirements.

D.8.5 Sulfur Dioxide - Combustion Fuel Usage [326 IAC 2-2][326 IAC 2-3]

Pursuant to CP 089-3630-00316 issued March 20, 1995, combustion sulfur dioxide emissions from the Electric Arc Furnace shall be limited by using natural gas-fired burners.

D.8.6 Sulfur Dioxide [326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a), the sulfur dioxide (SO<sub>2</sub>) emissions from the EAF shop ladle metal baghouse (143) shall not exceed 0.125 lbs/ton and 13.90 lbs/hour.

D.8.7 Ladle Preheater Limits [326 IAC 2-2][326 IAC 2-3]

Pursuant to Amendment 089-9155, issued January 7, 1998, the regenerative ladle preheaters shall not exceed the following:

- (a) the five ladle preheaters shall be fired by natural gas and limited to firing 130.9 million cubic feet per year;
- (b) combined nitrogen oxide emissions shall not exceed 37.50 pounds per hour, and 42.65 tons per year;
- (c) carbon monoxide emissions shall not exceed 1.15 pounds per hour and 1.31 tons per year.

D.8.8 Carbon Monoxide Emissions [326 IAC 2-2]

Pursuant to Construction Permit 089-3630-00316 issued March 20, 1995, the required amount of oxygen shall be supplied to the EAF to ensure that the carbon monoxide emissions shall not exceed 4.67 pounds per ton.

This limit will maintain emissions below 326 IAC 2-2 (Prevention of Significant Deterioration)

D.8.9 Prevention of Significant Deterioration and Emission Offset [326 IAC 2-2][326 IAC 2-3]

- (a) Pursuant to Construction Permit (45) 1856 issued October 17, 1990, that prior to the start of operation of the five natural gas ladle preheaters, the existing three cold combustion type horizontal ladle preheaters at the No. 1 Electric Furnace shop will be removed from operation.
- (b) Pursuant to Construction Permit 089-9033-00316 issued on February 26, 1998, the No. 80 furnace at the No. 1 Electric Arc Furnace Shop and the No. 2AC boiler 207-10 shall be permanently shutdown as required in CP No. 089-3630, issued on March 20, 1995. Also, as required in CP No. 089-6919-00316 issued on December 30, 1996, the emissions from the No. 1 Electric Arc Furnace shop (stacks 141 and 143) shall be limited as follows in tons per year:

TSP	PM <sub>10</sub>	SO <sub>2</sub>	Lead	VOC	NO <sub>x</sub>	CO
133.2	108.0	336.7	1.23	11.3	159.6	2303.5

- (c) Pursuant to CP 089-3630-00316 issued March 20, 1995, the 70.6 tons per year of sulfur dioxide shall be offset by 77 tons per year credit from the permanent shutdown of the 2AC boiler No. 207-10.
- (d) Pursuant to Significant Source Modification No.: 089-25598-00316, the production of leaded steel at the No. 1 Electric Arc Furnace Shop shall not exceed 640,900 tons per twelve (12) consecutive months with compliance determined at the end of each month, and the lead emission from the No. 1 Electric Arc Furnace Shop shall be limited as follows:

<b>EAF Related Emissions</b>	<b>Stack</b>	<b>Limit in lbs lead/ton of leaded steel</b>
No. 1 EAF Shop LMF	Stack 143 with baghouse	0.00028
No. 1 EAF Caster Tundish & Mold	Stack 137 with baghouse	0.00007
No. 1 EAF Caster Torch Cutoff	Stack 138 with baghouse	0.00028

<b>EAF Related Emissions</b>	<b>Stack</b>	<b>Limit in lbs lead/hr</b>
No. 1 EAF LMF Ladle Repair	Stack 136 with baghouse	0.0094

The above limits and conditions will maintain emissions below 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) level requirements.

### Compliance Determination Requirements

#### D.8.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) In order to demonstrate compliance with Conditions D.8.3 and D.8.4, the Permittee shall perform SO<sub>2</sub> and opacity testing on the electric arc furnace baghouse (stack 141) utilizing methods as approved by the Commissioner at least once every two and one half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.
- (b) In order to demonstrate compliance with Condition D.8.9, the Permittee shall perform lead (Pb) emissions testing on stacks 136, 137, and 138 for the No. 1 Electric Arc Furnace Shop utilizing methods as approved by the Commissioner at least once every two and one half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.
- (c) In order to demonstrate compliance with Conditions D.8.4(c) and D.8.6, the Permittee shall perform SO<sub>2</sub> emissions testing on the Ladle Metallurgical Facility Wet Gas Scrubber (stack 143) utilizing methods as approved by the Commissioner not later than 180 days after the issuance of this SPM No. 089-28972-00316. Subsequent testing shall be conducted once every two and one half (2.5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.

#### D.8.11 Particulate and Sulfur Dioxide (SO<sub>2</sub>) Controls [326 IAC 2-7-6(6)]

- (a) The electric arc furnace baghouse (141) for PM<sub>10</sub> control shall be in operation at all times that the electric arc furnace is in operation.
- (b) The ladle metallurgical station baghouse (143) for PM<sub>10</sub> control and the wet gas scrubber for SO<sub>2</sub> control shall be in operation at all times that the ladle metallurgical station is processing steel.

- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (d) In the event that a scrubber failure has been observed, failed units and the associated process will be shut down upon completion of processing of the steel in process at the Electric Arc Furnace and until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). The Permittee shall take a reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

#### **D.8.12 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

---

- (a) Visible emission notations of the electric arc furnace shop baghouses (141, 136, 137, 138 and 143) exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

#### **D.8.13 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

---

- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the electric arc furnace (141) at least once per day when the electric arc furnace is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0-10.5 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure drop reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

- (b) The Permittee shall record the pressure drop across the baghouse used in conjunction with the ladle metallurgical station processes (143) at least once per day when the ladle metallurgical station processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0-10.5 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A pressure drop reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.
- (c) The Permittee shall record the pressure drop across the baghouses used in conjunction with the No. 1 EAF Shop Caster Tundish and Mold (137), Caster Torch Cutoff (138), and Ladle Dump and Repair (136) processes at least once per day when the No. 1 EAF Shop Caster Tundish and Mold (137), Caster Torch Cutoff (138), and Ladle Dump and Repair (136) processes are in operation producing leaded steel. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0-10.5 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A pressure drop reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated in accordance with the manufacturer’s instructions or replaced but not less frequently than once per year.

**D.8.14 Wet Gas Scrubber Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

---

- (a) The Permittee shall monitor and record the recirculation water flow rate and pH of the scrubbing liquid for the wet gas scrubber associated with the LMF Station at least once per day. When for any one reading, the flow rate is below the minimum of 460 gallons per minute or the minimum established during the latest stack test, and when the pH of the scrubbing liquid drops below 7.0 or the level established during the latest stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A scrubbing flow rate reading that is below the above mentioned minimum and scrubbing liquid pH that drops below the level mentioned above are not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.
- (b) The instruments used for determining the scrubbing liquid flow rate and pH shall be subject to approval by IDEM, OAQ, and shall be calibrated (in accordance with the manufacturer’s instructions) or replaced but not less frequently than once per year.

**D.8.15 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]**

---

In order to comply with condition D.8.9, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.8.16 Record Keeping Requirements**

---

- (a) To document the compliance status with Conditions D.8.5 and D.8.15, the Permittee shall maintain the following records:
- (1) Records of the natural gas usage for each day at the EAF.

- (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
- (3) Records of any compliance emissions calculations.
- (b) In order to document the compliance status with Condition D.8.9(d), the Permittee shall maintain records of the tons of leaded steel produced at the No. 1 EAF Shop.
- (c) In order to document the compliance status with Condition D.8.12, the Permittee shall maintain records of once per day visible emission notations of the electric arc furnace operations baghouse stack exhaust(s). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (d) In order to document the compliance status with condition D.8.13, the Permittee shall maintain the once per day records of the pressure drop across the baghouse during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).
- (e) In order to document the compliance status with condition D.8.14, the Permittee shall maintain the once per day records of the water recirculation flow rate and pH during normal operation. The Permittee shall include in its daily record when recirculation water flow and pH are not taken and the reason for the lack of recirculation water flow rate and pH (e.g. the process did not operate that day).
- (f) Pursuant to CP 089-3630, issued March 20, 1995, a log of the information necessary to document compliance with Conditions D.8.4 (a), (b), (c), D.8.5, and D.8.9(c), shall be maintained.
- (g) A log of the information necessary to document compliance with Condition D.8.7 shall be maintained. The records shall include the cumulative amount of natural gas fired by the ladle preheaters for each month of operation.
- (h) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### D.8.17 Reporting Requirements

- (a) A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance status with Conditions D. 8.6 and D.8.16(a). Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The quarterly report shall be submitted no later than thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).
- (b) A quarterly summary of the information to document compliance with Condition D.8.9(d) shall be submitted no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

## SECTION D.9 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (j) 80" Hot Strip Mill comprised of the following facilities, process equipment, and operational practices:
- (1) One (1) No. 4 Walking Beam Furnace, with an estimated maximum heat input rate of 720 MMBtu/hr, equipped with low NOx burners and using natural gas as fuel, exhausting through stack 101 and 102, installed in 2001.
  - (2) One (1) No. 5 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 107, installed in 1995.
  - (3) One (1) No. 6 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 108, installed in 1995.
  - (4) One (1) Hot Rolling Mill Operation, including roughing mill with cooling water spray, crop shear and finishing stands exhausting to roof monitor 109.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.9.1 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No. 5 Walking Beam Furnace, No. 6 Walking Beam Furnace, No. 4 Walking Beam Furnace and Hot rolling mill operation shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.9.2 Walking Beam Furnace Limitations [326 IAC 2-2][326 IAC 2-3]

Pursuant to CP 089-4400 issued on August 23, 1995, the Walking Beam Furnaces shall be limited as follows:

- (a) NOx emissions shall not exceed 357 pounds per million cubic feet of natural gas.
- (b) Carbon monoxide emissions shall not exceed 13 pounds per million cubic feet of natural gas
- (c) the total heat input to the three walking furnaces shall not exceed an hourly rate of 1371.2 MMBtu/hr

#### D.9.3 Fuel Usage Limit [326 IAC 2-2]

Pursuant to CP 089-4400 issued on August 23, 1995, the amount of natural gas-fired shall be limited to twelve billion ( $12 \times 10^9$ ) cubic feet per 12 consecutive months with compliance determined at the end of each month.

#### D.9.4 Sulfur Dioxide [326 IAC 2-2]

Pursuant to CP 089-4400 issued on August 23, 1995, SO<sub>2</sub> emissions from the 80" Hot Strip Mill, Walking Beam Furnaces shall be minimized by using natural gas only as fuel.

#### D.9.5 PSD and Emissions Offset Credit Limits [ 326 IAC 2-2 and 326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-2, 326 IAC 2-3 and CP 089-4400 issued on August 23, 1995, the permanent shutdown of the following facilities shall continue in effect:
  - (1) "C" Coke Battery underfire
  - (2) "C" Coke Battery preheater

- (3) "C" Coke Battery process fugitives
  - (4) "C" Coke Battery NH4 destruct
  - (5) No. 3 Blast Furnace Stoves
  - (6) 80" Hot Strip Mill Pusher Furnaces
  - (7) No. 3 Bloom Mill reheat
  - (8) 14" Bar Mill reheat furnaces
  - (9) 24" Bar Mill reheat furnaces
  - (10) No. 3 Open Hearth
  - (11) 10" Bar Mill Reheat Furnace
  - (12) 44" Hot Strip Mill reheat
- (b) The reactivated two (2) natural gas fired Pusher Furnaces in CP 089-3192, issued on October 26, 1994, and the previously restricted backup Furnaces in PC (45) 1717, issued on December 15, 1988, at the 80" Hot Strip Mill shall be permanently removed from service.

These conditions will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emissions Offset).

### **Compliance Determination Requirements**

#### **D.9.6 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]**

---

Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance and Enforcement Branch, the Permittee shall perform NOx testing on the No. 4 Walking Beam Furnace (stacks 101 and 102), No.5 Walking Beam Furnace (107) and No. 6 Walking Beam Furnace (108) utilizing a testing method approved by the Commissioner to show compliance with condition D.9.2(a), in accordance with Section C - Performance Testing. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

### **Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.9.7 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.9.3, the Permittee shall maintain records of natural gas use.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.9.8 Reporting Requirements**

---

A quarterly summary of the information to document compliance with Condition D.9.3 and D.9.7 (a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported.

## SECTION D.10 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (k) 12" Bar Mill comprised of the following facilities, process equipment, and operational practices:
- (1) One (1) Billet Inspection Line Shotblaster, installed in 1994 with emissions controlled by a baghouse having an estimated maximum flow rate of 5000 acfm vented inside the building.
  - (2) One (1) Billet Grinding installed in 1977 exhausting through stack 87.
  - (3) One (1) natural gas fired Billet Reheat Furnace, installed in 1977, having an estimated maximum heat input of 375 MMBtu/hr, exhausting through stack 89
  - (4) One (1) 23 Stand Rolling Mill exhausting to roof monitor 88.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.10.1 Particulate Matter [326 IAC 6.8-2-6]

---

Pursuant to 326 IAC 6.8-6-17(c), the 12" Bar Mill billet reheat furnace (89) shall fire natural gas only.

#### D.10.2 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

---

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the Billet Inspection Line Shotblaster (90), Billet Grinding (87) and the 23 Stand Rolling Mill (88) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.10.3 Sulfur Dioxide [326 IAC 7-4.1-1]

---

Pursuant to 326 IAC 7-4.1-1, SO<sub>2</sub> emissions from the 12" Bar Mill Billet reheat furnace (89), shall be minimized by use of natural gas only.

### Compliance Determination Requirements

#### D.10.4 Particulate Control [326 IAC 2-7-6(6)]

---

Pursuant to CP-089-2545, issued on February 4, 1994, the Billet Inspection Line Shotblaster baghouse shall be operated at all times that the shotblaster is operating.

## SECTION D.11 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (l) No. 3 Cold Strip Mill comprised of the following facilities, process equipment, and operational practices:
- (1) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.
  - (2) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.
  - (3) 56 inch Tandem Mill (4 Stands) controlled by a mist eliminator exhausting through stack 177.
  - (4) 80 inch Tandem Mill (5 Stands) controlled by a mist eliminator exhausting through stack 175.
  - (5) Temper Mill No. 28 exhausting through stack 180.
  - (6) Temper Mill No. 29 exhausting through stack 181.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.11.1 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from each No.4 Pickling Line (178), No. 5 Pickling Line (176), 56 in Tandem Mill (177), 80 in. Tandem Mill (175), Temper Mill No. 28 (180) and Temper Mill No. 29 (181) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

## SECTION D.12 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (m) Coated Products comprised of the following facilities, process equipment, and operational practices:
- (1) No. 5 Galvanizing Line constructed in 1968, including:
    - (A) One (1) natural gas fired Radiant tube reducing furnace utilizing recuperative radiant tube burners with a an estimated maximum heat input of 112.6 MMBtu/hr, exhausting through stack 182.
    - (B) One (1) natural gas fired Galvanneal Furnace with an estimated maximum heat input of 36 MMBtu/hr, exhausting inside the building (open roof monitor) -182A.
  - (2) No. 1 Normalizer constructed in 1957, including:
    - (A) One (1) natural gas fired reducing furnace with 193 natural gas fired Eclipse SER burners with a total heat input of 31.652 MMBtu/hr exhausting through stack 183.
    - (B) One (1) natural gas fired flame heater furnace with an estimated maximum heat input of 28 MMBtu/hr annealing furnace exhausting through stack 183
    - (C) One (1) acid cleaning tank using hydrochloric acid and one (1) cascade rinse tank with emissions controlled by a fume scrubber and exhausting through stack 184.
  - (3) No. 3 Continuous Anneal Line constructed in 1982, including:
    - (A) One (1) natural gas fired Annealing Furnace and One (1) natural gas fired Age Furnace with an estimated total maximum heat input of 108 MMBtu/hr, hydrogen and nitrogen (static atmosphere), vented through stack 173.
    - (B) One (1) acid cleaning tank using hydrochloric acid with emissions controlled by a fume scrubber and exhausting through stack 174.
  - (4) Batch Anneal Facilities including:
    - (A) No. 5 Batch Anneal constructed in 1958, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 136 MMBtu/hr exhausting through stack 112.
    - (B) No. 6 Batch Anneal constructed in 1970, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 205 MMBtu/hr exhausting through stack 113.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.12.1 Particulate Matter [326 IAC 6.8-6]

Pursuant to 326 IAC 6.8-6-17(c), the following combustion sources shall fire natural gas only:

- (a) No. 5 Galvanizing Line (182)
- (b) No. 1 Normalizing Line (184)

- (c) No. 3 Continuous Anneal Line (173)
- (d) No. 5 and No. 6 Batch Anneals (112 and 113)

D.12.2 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the reducing furnace (81A), galvaneal furnace (182A), flame heating furnace (183) and annealing furnace (174) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.12.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4.1-1]

- (a) Pursuant to CP 089-3551, issued on October 28, 1994 and 326 IAC 7-4.1-1, SO<sub>2</sub> emissions from burners at the No. 1 Normalizer Line (184) shall be minimized by firing natural gas only.
- (b) Pursuant to 326 IAC 7-4.1-1, SO<sub>2</sub> emissions from the No. 5 and No.6 Batch Anneal furnaces (112 and 113), shall be minimized by firing natural gas only.

D.12.4 Nitrogen Oxide (NO<sub>x</sub>) [326 IAC 2-2]

- (a) Pursuant to CP 089-4940, issued on June 19, 1996, only natural gas shall be fired in the No. 5 Galvanizing Line recuperative radiant tube burners and NO<sub>x</sub> emissions shall not exceed three hundred-fifty (350) pounds per million cubic feet of natural gas burned and existing burners shall be removed. The total maximum heat input shall not exceed 74.9 MMBtu/hr.
- (b) Pursuant to CP 089-3551, issued on October 28, 1994, the NO<sub>x</sub> from the No. 1 Normalizer radiant tube annealing furnace shall not exceed 0.43 lbs/MMBtu heat input.
- (c) Pursuant to CP 089-8672, issued on June 15, 1998, NO<sub>x</sub> potential to emit from No. 5 and No.6 Batch Anneal facilities shall not exceed a total of 0.2 lbs/MMBtu. This is equivalent to 20.19 tons per year.

D.12.5 Emission Offsets [326 IAC 2-3]

- (a) Pursuant to CP 089-3551, issued on October 28, 1994, a total reduction of NO<sub>x</sub>, 140.7 tons per year (54.1 X 2.6) shall be achieved by the use of credited reduction from the permanent shutdown of the No. 2 AC Station Boilers 207-210 to achieve an internal offset of a 1.3 tons of NO<sub>x</sub> decrease for each 1.0 ton of NO<sub>x</sub> increase in lieu of the implementation of lowest achievable emission rate (LAER) to comply with 326 IAC 2-3-2(b)(3) and an additional minimum offset at the No. 2 AC Station Boilers 207-210 of 1.3 tons of NO<sub>x</sub> decrease for each 1.0 ton of NO<sub>x</sub> increase to comply with 326 IAC 2-3-3(a)(5).
- (b) Pursuant to CP 089-3551, issued on October 28, 1994, the Permittee shall:
  - (1) maintain a permanent shutdown of its Nos.6, 7, 8, 9, 10 and 11 Coke Oven Batteries
  - (2) maintain a permanent shutdown of its No. 2 Bloomer and shall not restart the No. 2 Bloomer without obtaining approved construction permits from IDEM OAQ
  - (3) not restart Nos. 1 and 2 Blast Furnaces
  - (4) not restart No. 3 Open Coil Anneal
  - (5) maintain a permanent shut down of six (6) pits at its No. 4 Slabber and not restart any of the pits without first obtaining approved construction permits from IDEM OAQ

- (c) Pursuant to CP 089-4940, issued on June 19, 1996, the 234.5 ton per year NO<sub>x</sub> reduction at No. 5 Galvanizing Line radiant tube furnaces required by 326 IAC 2-3-3(a) (2) shall be achieved by the shutdown of the following: 7.2 ton per year from open coil annealing furnace, 87.2 ton per year from No. 2 Bloomer, 67.7 ton per year from No. 1 Galvanizing line, 50.6 ton per year from No. 4 Slab Pits 1-18 and 22 ton per year from No. 8 Coke Battery.
- (d) Pursuant to CP 089-8672, issued on June 15, 1998 and 326 IAC 2-3-3(a)(5)(B), the NO<sub>x</sub> emissions from the No. 5 and No. 6 Batch Anneal Facilities are additionally offset by a ratio of 1.3 to 1.0 as a substitute for lowest achievable emission rate (LAER). This requires a reduction of 10.83 tons per year of NO<sub>x</sub>, which will be deducted from the NO<sub>x</sub> emission decrease credit from the retirement of the No. 3 AC Station.
- (e) Pursuant to CP 089-8672, issued on June 15, 1998 and 326 IAC 2-3, the anneal bases (No's 903-908) and three (3) new attendant furnaces (each furnace rated at 5.94 MMBtu/hr) at No. 6 Annealing Furnace shall not begin operation until the old facilities (bases No. 6-9, 16-19 and 26-29) and their attendant eight (8) old furnaces (each furnace rated at 4.8 MMBtu/hr) are removed from service.

#### D.12.6 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO PSD Credit Limits [326 IAC 2-2]

---

The No. 3 Galvanizing Line and No. 4 Aluminizing Line shall be permanently shutdown and removed from operation, prior to the operation of the No. 504 Boiler.

Compliance with this Condition, including Conditions D.6.5 and D.13.5 of this permit, Condition D.1.6, Condition D.7.5 in SPM 089-29300-00536 of ArcelorMittal Indiana Harbor, LLC (West Plant), Conditions D.1.3, D.3.1 and D.3.2 in SPM No. 089-29271-00356 of Beemsterboer Slag Corporation, and Condition D.1.3 in SPM No. 089-29316-00537 of Beemsterboer Slag Corporation shall result in total emission reduction of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO per year and shall render 326 IAC 2-2, PSD not applicable to the source modification permitted in SSM 089-28917-00316.

### **Compliance Determination Requirements**

#### D.12.7 Particulate Matter (PM)

---

The scrubbers used in conjunction with the No. 1 Normalizing Line (184) Cleaning Line and No. 3 Continuous Anneal Line (173) Cleaning Line shall be operated at all times that the respective Lines are operating.

## SECTION D.13 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (n) Utilities comprised of the following facilities, process equipment, and operational practices:
- (1) No. 2 AC Station including:
    - (A) Three (3) Boilers identified as 211-213, fired by natural gas and blast furnace gas from No. 5 and No. 6 blast furnaces:
      - (i) Boiler 211 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 125 and 126.
      - (ii) Boiler 212 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 127 and 128.
      - (iii) Boiler 213 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1949 exhausting through stacks 129 and 130.
    - (B) Two (2) Blast Furnace Gas Flares to burn excess blast furnace gas from No. 5 and No. 6 Blast Furnaces exhausting through stack 131.
    - (C) Nine (9) turbo blowers and five (5) electricity generators.
  - (2) No. 5 Boilerhouse consisting of Boilers 501-503 installed in 1976, each with an estimated maximum heat input of 520 MMBtu/hr exhausting through stack 134 and No. 504 Boiler approved in 2010 for construction with an estimated maximum heat input of 561.6 MMBtu/hr exhausting through stack 134a. The boilers are fired by blast furnace gas from No. 7 Blast Furnace gas and natural gas, produce steam, which is used in three turbo blowers to produce blast air, at generators to produce electrical power, and for general plant use. No. 504 Boiler uses natural gas for pilots and as backup fuel with maximum annual rate limited to 492 MMCF.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.13.1 Particulate Matter [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17 (Lake County PM10 Requirements), PM10 emissions from the Utilities operations shall not exceed the following:

- (a) PM10 emissions from the No.2 AC Station Boilers 211-213 shall not exceed 0.018 lbs/MMBtu and 16.20 pounds per hour
- (b) PM10 emissions from the No. 5 Boilerhouse 501-504 shall not exceed 0.013 lbs/MMBtu and 18.05 pounds per hour

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

#### D.13.2 Particulate Emission Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2, the particulate emissions from the No. 504 Boiler shall not exceed 0.01 gr/dscf.

**D.13.3 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-4.1-11]**

Pursuant to 326 IAC 7-4.1-11(a), the sulfur dioxide emission rate from these units shall be limited to the following:

- (a) SO<sub>2</sub> emissions from No.2 AC Station Boilers 211-213, shall not exceed 0.140 lbs/ MMBtu each and 168 lbs/hour total.
- (b) SO<sub>2</sub> emissions from No. 5 Boilerhouse 501-504, shall not exceed 0.198 lbs/MMBtu and 265.2 lbs/hour.

**D.13.4 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]**

- (a) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003 and 326 IAC 2-2-3 (Control Technology Review: Requirements) the carbon monoxide emissions from the various stacks associated with the No.7 Blast Furnace shall not exceed the following limitations:

Stack ID, associated equipment	Type of fuel combusted at the equipment	CO emissions limitations (pound/MMSCF of fuel)
134, No.5 Boiler House	Blast Furnace Gas	13.7
	Natural Gas	84
	Combination gas (a mix of natural gas and blast furnace gas)	$13.7 \times \text{Usage of BFG (MMSCF)} + 84 \times \text{Usage of NG (MMSCF)}$ Total usage of BFG and NG (MMSCF)

- (b) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, if the stack tests required under condition D.13.7 show that the CO emission limitations in condition D.13.3 are not achievable in practice, the Permittee can request the Department to re-evaluate the CO emissions limitations in D.13.3 (a). The department may, at its discretion, use the authority under IC 13-15-7-2 to re-open and revise the limit to more closely reflect the actual stack test results. The Department will provide an opportunity for public notice and comment prior to finalizing any permit decision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit modification.

**D.13.5 PM10, PM2.5, SO<sub>2</sub>, NO<sub>x</sub> and CO PSD and Emission Offset Credit Limits [326 IAC 2-2] [326 IAC 2-3]**

- (a) The total natural gas fuel usage at the No. 504 Boiler (pilot light and supplemental fuel) shall be limited to 492 million cubic feet (MMCF) per twelve consecutive month period, with compliance determined at the end of each month.
- (b) When No. 7 Blast Furnace is in operation during a twelve (12) consecutive month period, the minimum quantity of No. 7 Blast Furnace Gas (BFG) fuel usage at the No. 504 Boiler shall be greater than or equal to 3,288,088 million British thermal units (MMBtu) per twelve consecutive month period, with compliance at the end of each month.
- (c) The PM10 emissions from the No. 504 Boiler when combusting Blast Furnace Gas shall be limited to 0.05 pound per MMBtu (lb/MMBtu).
- (d) The PM2.5 emissions from the No. 504 Boiler when combusting Blast Furnace Gas shall be limited to 0.05 pound per MMBtu (lb/MMBtu).
- (e) The NO<sub>x</sub> emissions from the No. 504 Boiler when combusting Blast Furnace Gas shall be limited to 29.91 pounds per hour (lbs/hr).
- (f) The CO emissions from the No. 504 Boiler when combusting Blast Furnace Gas shall be limited to 0.138 pound per MMBtu (lb/MMBtu).
- (g) The shutdown in March 9, 2010 of Heritage Slag Products, LLC production plant (Plant ID 089- 00481) shall be permanent.

Compliance with this Condition, including Conditions D.6.5 and D.12.6 of this permit, Condition D.1.6, Condition D.7.5 in SPM 089-29300-00536 of ArcelorMittal Indiana Harbor, LLC (West Plant), Conditions D.1.3, D.3.1 and D.3.2 in SPM No. 089-29271-00356 of Beemsterboer Slag Corporation, and Condition D.1.3 in SPM No. 089 29316-00537 of Beemsterboer Slag Corporation shall result in total emission reduction of 87.12 tons of PM10 per year, 64.48 tons of PM2.5 per year, 173.52 ton of SO2 per year, 128.92 tons of NOx per year and 12.09 tons of CO per year and shall render 326 IAC 2-2, PSD and 326 IAC 2-1.1-5, Nonattainment NSR not applicable to the No. 504 Boiler permitted in SSM 089-28917-00316.

D.13.6 Equipment and Operational Specifications [326 IAC 2-2]

Pursuant to CP 089-3551 issued on October 28, 1994, the Permittee shall limit the use of Blast Furnace Gas and natural gas up to a maximum of 1410 MMBtu/hr in all boilers inclusive or in any boiler combination in lieu of oil as fuel at No. 2 AC Station (Boilers 211-213).

D.13.7 Operation Restriction – Shutdown of No.4 AC Station [326 IAC 2-2][326 IAC 2-3]

- (a) Pursuant to 326 IAC 2-2 and 326 IAC 2-3, within 30 days after the date of issuance of Significant Source Modification 089-16966-00316, issued on November 26, 2003, five (5) coal fired boilers identified as 401, 402, 403, 404 and 405 that form the part of 4 AC station and all the associated equipment for the operation of these boilers shall be shutdown permanently. In addition within 180 days of issuance of Significant Source Modification 089-16966-00316, issued on November 26, 2003 or before the restart of the No.7 Blast Furnace operation after the reline project in 2003, these boilers shall be physically disconnected and permanently removed from service.
- (b) On and after the date of issuance of Significant Source Modification 089-16966-00316, issued on November 26, 2003, the Permittee shall request the IDEM, OAQ to remove the 4 AC station and all the associated equipment permanently from the emissions inventory maintained by the State.
- (c) This condition supercedes all conditions in previous permits that allow the operation of the 4 AC station and its associated equipment.

**Compliance Determination Requirements**

D.13.8 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1), (6)]

- (a) Not later than sixty (60) days of achieving maximum production rate, but no later than one hundred eighty (180) days after the startup of No. 504 Boiler, the Permittee shall perform CO emissions testing when the boiler is burning BFG, utilizing methods as approved by the Commissioner to demonstrate compliance with the CO emission factor or Condition D.1.3.5(f) used in the PTE calculations of the No. 504 Boiler. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. This test does not require a repeat testing.
- (b) The PM 2.5 and PM10 testing on the No. 504 Boiler to show compliance with emission factors or Condition D.1.3.5(c and (d) used in the PTE calculations of the No. 504 Boiler shall be performed not later than 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8th, 2008 or not later than 180 days of achieving normal operation of the No. 504 Boiler, whichever comes later. This testing shall be conducted utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. This test does not require a repeat testing.

**D.13.9 NO<sub>x</sub> Continuous Emission Rate Monitoring Requirement [326 IAC 3-5]**

---

To demonstrate the compliance status with the NO<sub>x</sub> emissions limit in D.13.5(e) for the No. 504 Boiler, the Permittee shall install a continuous emissions monitoring system as allowed under the Clean Air Act and 326 IAC 3-5-1(d).

The Permittee shall install, calibrate, certify, operate and maintain a continuous emissions monitoring system to monitor NO<sub>x</sub> emissions, in accordance with 326 IAC 3-5-2 through 326 IAC 3-5-7.

- (1) The Permittee shall submit to IDEM, OAQ, within ninety (90) days after the monitor installation, a complete written continuous monitoring standard operating procedure (SOP), in accordance with the requirements of 326 IAC 3-5-4.
- (2) Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures pursuant to 326 IAC 3-5-5.
- (3) The Permittee shall record the output of the system and shall perform the required record keeping, pursuant to 326 IAC 3-5-6, and reporting, pursuant to 326 IAC 3-5-7.

**Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

**D.13.10 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis [326 IAC 7-4.1-11(b)]**

---

In order to comply with condition D.13.3, for No.2 AC Station Boilers 211-213 and No. 5 Boilerhouse 501-504, the Permittee shall comply with the sampling and analysis protocol in accordance with 326 IAC 7-4.1-11(b)(1).

**D.13.11 Maintenance of NO<sub>x</sub> CEMS [326 IAC 2-7-5(3)(A)(iii)]**

---

- (a) In the event that a breakdown of the NO<sub>x</sub> continuous emission monitoring systems (CEMS) occurs, the Permittee shall maintain records of all CEMS malfunctions, out of control periods, calibration and adjustment activities, and repair or maintenance activities.
- (b) The continuous emissions monitoring system (CEMS) shall be operated at all times the emissions unit or process is operating except for reasonable periods of monitor system downtime due to necessary calibration or maintenance activities or malfunctions. Calibration and maintenance activities shall be conducted pursuant to the standard operating procedures under 326 IAC 3-5-4(a).
- (c) Except as otherwise provided by a rule or provided specifically in this permit, whenever a continuous emission monitor system (CEMS) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, the Permittee shall perform supplemental monitoring by using calibrated handheld monitors to measure the NO<sub>x</sub> emissions on a once per shift basis, unless the CEMS operation is restored prior to the end of the shift.

The handheld monitors shall be approved by the IDEM, OAQ.

- (d) The Permittee shall keep records in accordance with 326 IAC 3-5-6(b) that includes the following:
  - (1) All documentation relating to:
    - (A) design, installation, and testing of all elements of the monitoring system; and
    - (B) required corrective action or compliance plan activities.
  - (2) All maintenance logs, calibration checks, and other required quality assurance activities.

- (3) All records of corrective and preventive action.
- (4) A log of plant operations, including the following:
  - (A) Date of facility downtime.
  - (B) Time of commencement and completion of each downtime.
  - (C) Reason for each downtime.
- (e) The Permittee shall keep records that describe the supplemental monitoring implemented during the downtime to assure compliance with applicable emission limitations.
- (f) In accordance with 326 IAC 3-5-7(5), the Permittee shall submit reports of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately.

The reports shall include the following:

- (1) Date of downtime.
  - (2) Time of commencement.
  - (3) Duration of each downtime.
  - (4) Reasons for each downtime.
  - (5) Nature of system repairs and adjustments.
- (g) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5.

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **D.13.12 Record Keeping Requirements**

- (a) To document the compliance status with Conditions D.13.3, D.13.5 and D.13.10, the Permittee shall maintain the following records:
  - (1) Records of the total blast furnace gas and natural gas usage for each day at the No.2 AC Station Boilers 211-213 and No. 5 Boilerhouse 501-504.
  - (2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.
  - (2) Records of any compliance emissions calculations.
- (b) To document the compliance status with Conditions D.13.9 and D.13.11, the Permittee shall maintain records of the continuous emission monitoring data in accordance with 326 IAC 3-5.
- (c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

#### **D.13.13 Reporting Requirements**

- (a) A quarterly report shall be submitted containing the calculated SO<sub>2</sub> emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.13.3 and D.13.12(a). Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition.

The quarterly report shall be submitted no later than thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

- (b) A quarterly report to document the compliance status with Condition D.13.5(a) and (b) shall be submitted for the natural gas and Blast Furnace Gas (BFG) fuel usage at the No. 504 Boiler no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).
- (c) Records of excess NOx emissions (defined in 326 IAC 3-5-7) from the continuous emissions monitoring system. These reports shall be submitted no later than thirty (30) calendar days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).
- (d) A quarterly summary of the CEMs data used to document compliance with Condition D.13.5(e) shall be submitted no later than thirty (30) calendar days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official," as defined by 326 IAC 2-7-1 (34).

## SECTION D.14 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (o) Shops comprised of the following facilities, process equipment, and operational practices:
- (1) Mold Foundry Building: Pugh Ladle Car Preparation, dekishing, debricking and drying fired by natural gas (44) and Pugh ladle lancing fired by natural gas with emissions controlled by former mold foundry baghouse exhausting through stack 43. This baghouse also controls Pugh Ladle pigging emissions resulting from the adjacent contractor's operation.
  - (2) No. 6 Roll shop for 12 inch bar mill including shotblaster with emissions controlled by a baghouse and exhausting through stack 200.
  - (3) Electric Shop including shotblaster with emissions controlled by a baghouse and exhausting through stack 201, blaster baghouse unloading, paint booth, varnish dip tanks and undercutting booth.
  - (4) No. 4 Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 203, Wheelabrator shotblaster with emissions controlled by a baghouse and exhausting through stack 204.
  - (5) No. 4 A Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 205 and Pangborn shotblaster with emissions controlled by a baghouse and exhausting through stack 206.
  - (6) No. 5 Roll Shop.
  - (7) Mobile Equipment shop including refrigerant recovery and parts cleaning.
  - (8) Equipment Repair Shop including Machine Shop (Plant 2).
  - (9) Mason Building Shop.
  - (10) Refrigeration Shop.
  - (11) Fabrication and Repair Shop (Plant 1).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.14.1 Lake County PM10 emission requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17, TSP and PM10 emissions from the Shop operations shall not exceed the following:

- (a) PM10 emissions from the former mold foundry baghouse (43) shall not exceed 0.011 gr/dscf and 26 lbs/hr.
- (b) TSP emissions from the No. 6 roll shop rollshot blaster baghouse (200) shall not exceed 0.0052 gr/dscf and 0.200 lbs/hr.
- (c) TSP emissions from the Electric shop shotblaster baghouse (201) shall not exceed 0.0052 gr/dscf and 1.070 lbs/hr.
- (d) TSP emissions from the No. 4 roll shop Ervin shotblaster baghouse (203) shall not exceed 0.0052 gr/dscf and 0.210 lbs/hr.

- (e) TSP emissions from the No. 4 roll shop Wheelabrator shotblaster (204) baghouse shall not exceed 0.0052 gr/dscf and 0.260 lbs/hr.
- (f) TSP emissions from the No. 4A roll shop Ervin shotblaster baghouse (205) shall not exceed 0.0052 gr/dscf and 0.210 lbs/hr.
- (g) TSP emissions from the No. 4A roll shop Pangborn shotblaster (206) baghouse shall not exceed 0.0052 gr/dscf and 0.260 lbs/hr.

Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emission limitations apply to one (1) stack serving the multiple units specified when the facility descriptions notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

#### D.14.2 Prevention of Significant Deterioration and Emission Offset [326 IAC 2-2][326 IAC 2-3]

The pugh car lancing operation and the dekishing and debricking operations shall be conducted inside the mold foundry building as required in CP No. 089-2905 issued on March 29, 1993. The emissions from the lancing operations, shall be captured and exhausted to the former mold foundry baghouse with particulate matter emissions not to exceed 26.0 pounds per hour and 0.011 grains per dry standard cubic foot of exhaust air. The iron dumping operation, which accompanied these operations has been replaced by pigging. However, in an emergency or when the pig machine is not available, iron dumping is used. Lancing of Pugh Ladles shall not occur simultaneously with Pugh ladle pigging operations at the adjacent contractor. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) do not apply.

#### D.14.3 Sulfur Dioxide (SO<sub>2</sub>)[326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a), the SO<sub>2</sub> emissions from the pigging ladle facility (43) shall not exceed 0.020 lbs/ton and 4.000 lbs/hour.

### **Compliance Determination Requirements**

#### D.14.4 Particulate Control [326 IAC 2-7-6(6)]

- (a) The former Mold Foundry, No. 6 Roll shop, Electric shop, and No. 4 Roll Shop baghouses shall be operated at all times that related processes at the subject facilities are operating. At the former Mold Foundry that equipment includes Pugh Ladle Car Lancing.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

#### D.14.5 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

- (a) Visible emission notations of the former mold foundry baghouse (43) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

**D.14.6 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

---

The Permittee shall record the pressure drop across the baghouse used in conjunction with the former mold foundry baghouse (43) stack once per day when the processes are in operation and venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

**D.14.7 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]**

---

For a single compartment baghouse-controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

**Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.14.8 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.14.5 the Permittee shall maintain records of once per day visible emission notations of the former mold foundry baghouse (43) stack exhaust.
- (b) To document compliance with Condition D.14.6, the Permittee shall maintain once per day records of the pressure drop across the former mold foundry baghouse (43) during normal operation when venting to the atmosphere.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION D.15 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:**

(p) Storage Vessels:

- (1) One (1) 21,380 gallon tank (T19K1) containing Diesel No. 2, located at the "E" Yard – Internal Logistics, constructed prior to 1972.
- (2) One (1) 21,380 gallon tank (T-8H1) containing Diesel No. 2, located at the "B" Yard – 2 BOF, constructed prior to 1972.
- (3) One (1) 10,000 gallon tank (T20K-1) containing Diesel No. 2, located at the Main Shop Fueling Station – Internal Logistics, constructed in 1997.
- (4) One (1) 8,000 gallon tank (T02E-1) containing Diesel No. 2, located south of the bar company scrap yard - 12" Bar Mill constructed in 1999.
- (5) One (1) 7,500 gallon tank (T1G-1) containing Diesel No. 2, located north of the Electric Furnace Billet Caster constructed in 1999.
- (6) One (1) 6,000 gallon tank (T25E-1) containing Diesel No. 2, located at the No. 7 Blast Furnace Emergency Pump House, constructed in 1994.
- (7) One (1) 5,000 gallon tank (T17P-1) containing Diesel No. 2, located at the 80" Hot Strip Mill coil carrier fuel station, constructed in 1994.
- (8) One (1) 4,200 gallon tank (T10-200) containing Diesel No. 2, located at the No. 3 Cold Strip East bulk oil storage area constructed in 1970.
- (9) One (1) 3,355 gallon tank (T18E-1 ) containing Diesel No. 2, located at the #4 BOF Mobile Equipment Shop, constructed in 1994.
- (10) Two (2) 3,000 gallon tanks (T10-232a & T10-232b) containing Power Clean, located at the No. 3 Cold Strip East, Nos. 4 and 5 Hydraulic System, constructed in 1970.
- (11) One (1) 130,000 gallon tank (T-17F1) containing Reclaimed oil, located at the Lime Plant, constructed in 1973.
- (12) One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.
- (13) One (1) 1,016,000 gallon tank (T-6F1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.
- (14) One (1) 1,016,000 gallon tank (T-6F2) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.
- (15) One (1) 500,000 gallon tank (T-6F3) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1975.
- (16) One (1) 100,000 gallon tank (T-02F1) containing #6 fuel oil, located at the 12" Bar Mill, constructed in 1977.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Facility Description [326 IAC 2-7-5(15)]:**

- (17) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.
- (18) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards**

**D.15.1 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]**

Pursuant to 326 IAC 8-9-1, the Permittee is required to keep records on the information in 326 IAC 8-9-6(a)-(b) for all storage vessels containing recycled oil, #2 fuel oil, #6 fuel oil, bunker oil and reclaim oil.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

**D.15.2 Record Keeping Requirements**

Pursuant to 326 IAC 8-9, the Permittee must keep records of the following:

- (a) The vessel identification number;
- (b) The vessel dimensions; and
- (c) The vessel capacity.

Records shall be maintained for the life of the vessel.

## SECTION D.16 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Specifically Regulated Insignificant Activities:

- (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons. [326 IAC 8-9-1]
- (2) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]
- (3) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]
- (4) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.8-1-2]

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.16.1 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), grinding and machining operations shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.16.2 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

Pursuant to 326 IAC 8-9-1, the Permittee is required to keep records on the information in 326 IAC 8-9-6(a)-(b) for all Volatile Organic liquid storage vessels.

#### D.16.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations existing as of January 1, 1980, located in Clark, Elkhart, Floyd, Lake, Marion, Porter and St. Joseph Counties and which have potential emissions of one hundred (100) tons per year or greater of VOC, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

#### D.16.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs existing as of July 1, 1990, located in Lake, County, the Permittee shall ensure that the following requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
  - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius ( $38^{\circ}\text{C}$ ) (one hundred degrees Fahrenheit ( $100^{\circ}\text{F}$ ));
  - (B) The solvent is agitated; or
  - (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius ( $38^{\circ}\text{C}$ ) (one hundred degrees Fahrenheit ( $100^{\circ}\text{F}$ )), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius ( $38^{\circ}\text{C}$ ) (one hundred degrees Fahrenheit ( $100^{\circ}\text{F}$ )), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius ( $48.9^{\circ}\text{C}$ ) (one hundred twenty degrees Fahrenheit ( $120^{\circ}\text{F}$ )):
  - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
  - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
  - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

### **Compliance Determination Requirement**

#### **D.16.5 Particulate Control**

---

In order to comply with D.16.1, the control equipment for particulate control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

#### **D.16.6 Record Keeping Requirements**

---

Pursuant to 326 IAC 8-9, the Permittee must keep records of the following:

- (a) The vessel identification number;

- (b) The vessel dimensions; and
- (c) The vessel capacity.

Records shall be maintained for the life of the vessel.

D.16.7 Volatile Organic Compounds (VOC) [326 IAC 8-3-8] (Material requirements for cold cleaning degreasers)

---

Pursuant to 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers), the users, providers, and manufacturers of solvents for use in cold cleaning degreasers in Clark, Floyd, Lake, and Porter Counties, except for solvents intended to be used to clean electronic components shall do the following:

- (a) On and after November 1, 1999, no person shall operate a cold cleaning degreaser with a solvent vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) On and after May 1, 2001, no person shall Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (c) On and after November 1, 1999, all persons subject to the requirements of 326 IAC 8-3-8 (c)(1)(B) and (c)(2)(B) shall maintain each of the following records for each purchase:
  - (1) The name and address of the solvent supplier.
  - (2) The date of purchase.
  - (3) The type of solvent.
  - (4) The volume of each unit of solvent.
  - (5) The total volume of the solvent.
  - (6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (d) All records required by 326 IAC 8-3-8 (d) shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

**SECTION E.1 Clean Air Interstate Rule (CAIR) Nitrogen Oxides Ozone Season Trading Programs –  
CAIR Permit for CAIR Units Under 326 IAC 24-3-1(a)**

**ORIS Code: 10474**

**CAIR Permit for CAIR Units Under 326 IAC 24-1-1(a), 326 IAC 24-2-1(a), and 326 IAC 24-3-1(a)**

- (n) Utilities comprised of the following facilities, process equipment, and operational practices:
- (1) No. 2 AC Station including:
    - (A) Three (3) Boilers identified as 211-213, fired by natural gas and blast furnace gas from No. 5 and No. 6 blast furnaces:
      - (i) Boiler 211 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 125 and 126.
      - (ii) Boiler 212 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 127 and 128.
      - (iii) Boiler 213 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1949 exhausting through stacks 129 and 130.
  - (2) No. 5 Boilerhouse consisting of Boilers 501-503 installed in 1976, each with an estimated maximum heat input of 520 MMBtu/hr exhausting through stack 134 and No. 504 Boiler approved in 2010 for construction with an estimated maximum heat input of 561.6 MMBtu/hr exhausting through stack 134a. The boilers are fired by blast furnace gas from No. 7 Blast Furnace gas and natural gas, produce steam, which is used in three turbo blowers to produce blast air, at generators to produce electrical power, and for general plant use.

**(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)**

**E.1.1 Automatic Incorporation of Definitions [326 IAC 24-3-7(e)] [40 CFR 97.323(b)]**

This CAIR permit is deemed to incorporate automatically the definitions of terms under 326 IAC 24-3-2.

**E.1.2 Standard Permit Requirements [326 IAC 24-3-4(a)] [40 CFR 97.306(a)]**

- (a) The owners and operators of each CAIR NO<sub>x</sub> ozone season source and CAIR NO<sub>x</sub> ozone season unit shall operate each source and unit in compliance with this CAIR permit.
- (b) The CAIR NO<sub>x</sub> ozone season units subject to this CAIR permit are Boilers 211-213 in No. 2 AC Station and Boilers 501-504 in No. 5 Boilerhouse.

**E.1.3 Monitoring, Reporting, and Record Keeping Requirements [326 IAC 24-3-4(b)] [40 CFR 97.306(b)]**

- (a) The owners and operators, and the CAIR designated representative, of each CAIR NO<sub>x</sub> ozone season source and CAIR NO<sub>x</sub> ozone season unit at the source shall comply with the applicable monitoring, reporting, and record keeping requirements of 326 IAC 24-3-11.
- (b) The emissions measurements recorded and reported in accordance with 326 IAC 24-3-11 shall be used to determine compliance by each CAIR NO<sub>x</sub> ozone season source with the CAIR NO<sub>x</sub> ozone season emissions limitation under 326 IAC 24-3-4(c).

E.1.4 Nitrogen Oxides Ozone Season Emission Requirements [326 IAC 24-3-4(c)] [40 CFR 97.306(c)]

- (a) As of the allowance transfer deadline for a control period, the owners and operators of each CAIR NO<sub>x</sub> ozone season source and each CAIR NO<sub>x</sub> ozone season unit at the source shall hold, in the source's compliance account, CAIR NO<sub>x</sub> ozone season allowances available for compliance deductions for the control period under 326 IAC 24-3-9(i) in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO<sub>x</sub> ozone season units at the source, as determined in accordance with 326 IAC 24-3-11.
- (b) A CAIR NO<sub>x</sub> ozone season unit shall be subject to the requirements under 326 IAC 24-3-4(c)(1) for the control period starting on the applicable date, as determined under 326 IAC 24-3-4(c)(2), and for each control period thereafter.
- (c) A CAIR NO<sub>x</sub> ozone season allowance shall not be deducted for compliance with the requirements under 326 IAC 24-3-4(c)(1), for a control period in a calendar year before the year for which the CAIR NO<sub>x</sub> ozone season allowance was allocated.
- (d) CAIR NO<sub>x</sub> ozone season allowances shall be held in, deducted from, or transferred into or among CAIR NO<sub>x</sub> ozone season allowance tracking system accounts in accordance with 326 IAC 24-3-9, 326 IAC 24-3-10, and 326 IAC 24-3-12.
- (e) A CAIR NO<sub>x</sub> ozone season allowance is a limited authorization to emit one (1) ton of nitrogen oxides in accordance with the CAIR NO<sub>x</sub> ozone season trading program. No provision of the CAIR NO<sub>x</sub> ozone season trading program, the CAIR permit application, the CAIR permit, or an exemption under 326 IAC 24-3-3 and no provision of law shall be construed to limit the authority of the State of Indiana or the United States to terminate or limit the authorization.
- (f) A CAIR NO<sub>x</sub> ozone season allowance does not constitute a property right.
- (g) Upon recordation by the U.S. EPA under 326 IAC 24-3-8, 326 IAC 24-3-9, 326 IAC 24-3-10, or 326 IAC 24-3-12, every allocation, transfer, or deduction of a CAIR NO<sub>x</sub> ozone season allowance to or from a CAIR NO<sub>x</sub> ozone season source's compliance account is incorporated automatically in this CAIR permit.

E.1.5 Excess Emissions Requirements [326 IAC 24-3-4(d)] [40 CFR 97.306(d)]

The owners and operators of a CAIR NO<sub>x</sub> ozone season source and each CAIR NO<sub>x</sub> ozone season unit that emits nitrogen oxides during any control period in excess of the CAIR NO<sub>x</sub> ozone season emissions limitation shall do the following:

- (a) Surrender the CAIR NO<sub>x</sub> ozone season allowances required for deduction under 326 IAC 24-3-9(j)(4).
- (b) Pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, the Clean Air Act (CAA) or applicable state law.

Each ton of such excess emissions and each day of such control period shall constitute a separate violation of 326 IAC 24-3-4, the Clean Air Act (CAA), and applicable state law.

E.1.6 Record Keeping Requirements [326 IAC 24-3-4(e)] [326 IAC 2-7-5(3)] [40 CFR 97.306(e)]

Unless otherwise provided, the owners and operators of the CAIR NO<sub>x</sub> ozone season source and each CAIR NO<sub>x</sub> ozone season unit at the source shall keep on site at the source or at a central location within Indiana for those owners or operators with unattended sources, each of the following documents for a period of five (5) years from the date the document was created:

- (a) The certificate of representation under 326 IAC 24-3-6(h) for the CAIR designated representative for the source and each CAIR NO<sub>x</sub> ozone season unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation. The certificate and documents shall be retained on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond such five (5) year period until such documents are superseded because of the submission of a new account certificate of representation under 326 IAC 24-3-6(h) changing the CAIR designated representative.
- (b) All emissions monitoring information, in accordance with 326 IAC 24-3-11, provided that to the extent that 326 IAC 24-3-11 provides for a three (3) year period for record keeping, the three (3) year period shall apply.
- (c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the CAIR NO<sub>x</sub> ozone season trading program.
- (d) Copies of all documents used to complete a CAIR permit application and any other submission under the CAIR NO<sub>x</sub> ozone season trading program or to demonstrate compliance with the requirements of the CAIR NO<sub>x</sub> ozone season trading program.

This period may be extended for cause, at any time before the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the record keeping required by this condition.

E.1.7 Reporting Requirements [326 IAC 24-3-4(e)] [40 CFR 97.306(e)]

- (a) The CAIR designated representative of the CAIR NO<sub>x</sub> ozone season source and each CAIR NO<sub>x</sub> ozone season unit at the source shall submit the reports required under the CAIR NO<sub>x</sub> ozone season trading program, including those under 326 IAC 24-3-11.
- (b) Pursuant to 326 IAC 24-3-4(e) and 326 IAC 24-3-6(e)(1), each submission under the CAIR NO<sub>x</sub> ozone season trading program shall include the following certification statement by the CAIR designated representative: "I am authorized to make this submission on behalf of the owners and operators of the source or units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."
- (c) Where 326 IAC 24-3 requires a submission to IDEM, OAQ, the information shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53, IGCN 1003  
Indianapolis, Indiana 46204-2251
- (d) Where 326 IAC 24-3 requires a submission to U.S. EPA, the information shall be submitted to:  
  
U.S. Environmental Protection Agency  
Clean Air Markets Division  
1200 Pennsylvania Avenue, NW  
Mail Code 6204N  
Washington, DC 20460

E.1.8 Liability [326 IAC 24-3-4(f)] [40 CFR 97.306(f)]

The owners and operators of each CAIR NO<sub>x</sub> ozone season source and each CAIR NO<sub>x</sub> ozone season unit shall be liable as follows:

- (a) Each CAIR NO<sub>x</sub> ozone season source and each CAIR NO<sub>x</sub> ozone season unit shall meet the requirements of the CAIR NO<sub>x</sub> ozone season trading program.
- (b) Any provision of the C CAIR NO<sub>x</sub> ozone season trading program that applies to a CAIR NO<sub>x</sub> ozone season source or the CAIR designated representative of a CAIR NO<sub>x</sub> ozone season source shall also apply to the owners and operators of such source and of the CAIR NO<sub>x</sub> ozone season units at the source.
- (c) Any provision of the CAIR NO<sub>x</sub> ozone season trading program that applies to a CAIR NO<sub>x</sub> ozone season unit or the CAIR designated representative of a CAIR NO<sub>x</sub> ozone season unit shall also apply to the owners and operators of such unit.

E.1.9 Effect on Other Authorities [326 IAC 24-3-4(g)] [40 CFR 97.306(g)]

No provision of the CAIR NO<sub>x</sub> ozone season trading program, a CAIR permit application, a CAIR permit, or an exemption under 326 IAC 24-3-3 shall be construed as exempting or excluding the owners and operators, and the CAIR designated representative, of a CAIR NO<sub>x</sub> ozone season source or CAIR NO<sub>x</sub> ozone season unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act (CAA).

E.1.10 CAIR Designated Representative and Alternate CAIR Designated Representative [326 IAC 24-3-6] [40 CFR 97, Subpart BBBB]

Pursuant to 326 IAC 24-3-6:

- (a) Except as specified in 326 IAC 24-3-6(f)(3), each CAIR NO<sub>x</sub> ozone season source, including all CAIR NO<sub>x</sub> ozone season units at the source, shall have one (1) and only one (1) CAIR designated representative, with regard to all matters under the CAIR NO<sub>x</sub> ozone season trading program concerning the source or any CAIR NO<sub>x</sub> ozone season unit at the source.
- (b) The provisions of 326 IAC 24-3-6(f) shall apply where the owners or operators of a CAIR NO<sub>x</sub> ozone season source choose to designate an alternate CAIR designated representative.

Except as specified in 326 IAC 24-3-6(f)(3), whenever the term "CAIR designated representative" is used, the term shall be construed to include the CAIR designated representative or any alternate CAIR designated representative.

## **SECTION E.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units**

### **Facility Description [326 IAC 2-7-5(15)]:**

- (n) Utilities comprised of the following facilities, process equipment and operational practices:
- (2) One (1) blast furnace gas and natural gas-fired 561.6 million British thermal units per hour (MMBtu/hr) Boiler, identified as 504 Boiler.

**(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)**

#### E.2.1 General Provisions Relating to NSPS [326 IAC 12-1-1] [40 CFR Part 60, Subpart A]

The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A– General Provisions, which are incorporated by reference as 326 IAC 12-1-1, for this boiler, in accordance with schedule in 40 CFR Part 60, Subpart A.

#### E.2.2 Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Db]

Pursuant to 40 CFR Part 60, Subpart Db, this boiler shall comply with the following provisions:

- 40 CFR § 60.40b
- 40 CFR § 60.41b
- 40 CFR § 60.49b(a) and (d)

## SECTION F FUGITIVE DUST SOURCES

### Facility Description [326 IAC 2-7-5(15)]:

#### Fugitive Dust Sources consisting of, but not limited to the following:

- (1) Paved Roads and Parking Lots
- (2) Unpaved Roads and Parking Lots
- (3) Batch Transfer-Loading and Unloading Operations
- (4) Continuous Transfer In and Out of Storage Piles
- (5) Batch Transfer Operations-Slag and Kish Handling
- (6) Wind Erosion from Storage Piles and Open Areas
- (7) In Plant Transfer by Truck or Rail
- (8) In Plant Transfer by Front End Loader or Skip Hoist
- (9) Material Processing Facility (except Crusher Fugitive Emissions)
- (10) Crusher Fugitive Emissions
- (11) Material Processing Facility Building Openings
- (12) Dust Handling Equipment

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### F.1 Fugitive Dust Emissions [326 IAC 6.8-10]

- (a) Pursuant to 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (1) Paved roads and Parking Lots.

- (A) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:

- (i) The first shall be taken at the time of emission generation.
- (ii) The second shall be taken five (5) seconds later.
- (iii) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

- (B) The Permittee shall implement the control measures specified by 326 IAC 6.8-10-4 within twenty-four (24) hours after notification by the IDEM, OAQ

or U.S.EPA of violating the average instantaneous opacity limit. A violation of the instantaneous average opacity limit is a violation of 326 IAC 6.8-10.

- (C) When requested by the department or the U.S. EPA, after an exceedance of the opacity limit is observed by a representative of either agency, the source shall initiate a compliance check with the surface silt loading limit. The department may require a revision of the control plan under subsection 326 IAC 6.8-10-4, if the test shows an exceedance of the surface silt loading limit.

(2) Unpaved Roads and Parking Lots.

- (A) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:

- (i) The first shall be taken at the time of emission generation.
- (ii) The second shall be taken five (5) seconds later.
- (iii) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

- (B) The fugitive particulate emissions from unpaved roads shall be controlled by the implementation of a work program and work practice under the control plan required in 326 IAC 6.8-10-4. The department may request a revision of the control plan pursuant to 326 IAC 6.8-10, if an observation shows an exceedance of the average instantaneous opacity limit. The revision may be in lieu of, or in addition to, pursuing an enforcement action for a violation of the limit.

(3) Material Transfer Limits.

- (A) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.
- (B) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%) three (3) minute average. This includes material transfer to the initial hopper of a material processing facility as defined in 326 IAC 6.8-10-2 or material transfer for transportation within or outside the source property including, but not limited to, the following:

- (i) Transfer of slag product for use by asphalt plants:
  - (AA) From a storage pile to a front end loader; and

(BB) From a front end loader to a truck.

- (ii) Transfer of sinter blend for use at the sinter plant:
  - (AA) From a storage pile to a front end loader;
  - (BB) From a front end loader to a truck; and
  - (CC) From a truck to the initial processing point.
- (iii) Transfer of coal for use at a coal processing line:
  - (AA) From a storage pile to a front end loader; and
  - (BB) From a front end loader to the initial hopper of a coal processing line.

Compliance with any operation lasting less than three (3) minutes shall be determined as an average of consecutive operations recorded at fifteen (15) second intervals for the duration of the operation.

- (C) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits.
  - (i) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.
  - (ii) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3.
- (4) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9. The opacity readings shall be taken at least four (4) feet from the point of origin.
- (5) Wind erosion from storage piles and exposed areas.
  - (A) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. These limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During periods of sustained very high wind speeds, the Permittee must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.
  - (B) The opacity of fugitive particulate emissions from exposed areas shall not exceed ten percent (10%) on a six (6) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9. These limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During periods of sustained very high wind speeds, the Permittee must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the

application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.

(6) Inplant Transportation of Material by Truck or Rail.

There shall be a zero (0) percent frequency of visible emission observations of a material during the in plant transportation of material by truck or rail at any time. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the in plant transportation requirement. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22, except that the observation shall be taken at approximately right angles to the prevailing wind from the leeward side of the truck or railroad car.

(7) Inplant Transportation of Material by Front End Loader or Skip Hoist.

The opacity of fugitive particulate emissions from the in plant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%). Compliance with this limitation shall be determined by the average of three (3) opacity readings taken at five (5) second intervals. The three (3) opacity readings shall be taken as follows:

- (A) The first shall be taken at the time of emission generation.
- (B) The second shall be taken five (5) seconds later.
- (C) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet from the plume approximately and at right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

(8) Material Processing Facilities.

- (A) The PM<sub>10</sub> stack emissions from each material processing facility shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent (10%) opacity. Compliance with the concentration limitation shall be determined using the test methods found in 326 IAC 6.8-4-1. Compliance with the opacity limitation shall be determined by 40 CFR 60, Appendix A, Method 9.
- (B) The opacity of fugitive particulate emissions from a material processing facility, except crusher at which a capture system is not used, shall not exceed ten percent (10%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.
- (C) The opacity of fugitive particulate emissions from a crusher at which a capture system is not used shall not exceed fifteen percent (15%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.
- (D) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22.
- (E) The PM<sub>10</sub> emissions from building vents shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent

(10%) opacity. Compliance with the concentration standard shall be determined by 40 CFR 60, Appendix A, Method 5 or 17, and with the opacity standard by 40 CFR 60, Appendix A, Method 9.

- (9) Dust Handling Equipment. The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%). Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.
  - (10) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute opacity standard. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9, except that the opacity standard shall be determined as an average of twelve (12) consecutive observations recorded at fifteen (15) second intervals. Compliance of any operation lasting less than three (3) minutes shall be determined as an average of consecutive observations recorded at fifteen (15) second intervals for the duration of the operation.
- (b) The Permittee is subject to 326 IAC 6.8-11-4, 326 IAC 6.8-11-5 and 326 IAC 6.8-11-6 (Lake County Particulate Matter Contingency Measures) because it is subject to the requirements of 326 IAC 6.8-10.
  - (c) Permittee has submitted a Fugitive Dust Control Plan to the IDEM in accordance with 326 IAC 6.8-10 and has been attached to the Part 70 Permit. Permittee shall keep records consistent with its Fugitive Dust Control Plan.

## SECTION G.1

### Facility Description [326 IAC 2-7-5(15)]:

The affected sources are each new or existing sinter plant windbox exhaust, discharge end, and sinter cooler; the blast furnace casthouse; and the BOPF shop including each individual BOPF and shop ancillary operations (hot metal transfer, hot metal desulfurization, slag skimming, and ladle metallurgy)

**(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)**

#### G.1.1 General Provisions Relating to HAPs [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]

(a) The provisions of 40 CFR 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected sources, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue,  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### G.1.2 National Emission Standards for Hazardous Air Pollutants (HAPs): Integrated iron and Steel Manufacturing - Sinter Plants [40 CFR 63, Subpart FFFFF] [326 IAC 20-1]

The Permittee shall comply with the following provisions of 63, Subpart FFFFF (included as Attachment A of the permit), which are incorporated by reference in 326 IAC 20-1:

- (a) 40 CFR 63.7780
- (b) 40 CFR 63.7781
- (c) 40 CFR 63.7782
- (d) 40 CFR 63.7783
- (e) 40 CFR 63.7790
- (f) 40 CFR 63.7800
- (g) 40 CFR 63.7810
- (h) 40 CFR 63.7820
- (i) 40 CFR 63.7821
- (j) 40 CFR 63.7822
- (k) 40 CFR 63.7823
- (l) 40 CFR 63.7824
- (m) 40 CFR 63.7825
- (n) 40 CFR 63.7826

- (o) 40 CFR 63.7830
- (p) 40 CFR 63.7831
- (q) 40 CFR 63.7832
- (r) 40 CFR 63.7833
- (s) 40 CFR 63.7834
- (t) 40 CFR 63.7835
- (u) 40 CFR 63.7840
- (v) 40 CFR 63.7841
- (w) 40 CFR 63.7842
- (x) 40 CFR 63.7843
- (y) 40 CFR 63.7850
- (z) 40 CFR 63.7851
- (aa) 40 CFR 63.7852
- (bb) Table 1
- (cc) Table 2
- (dd) Table 3
- (ee) Table 4

## SECTION G.2

### Facility Description [326 IAC 2-7-5(15)]:

- (d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:
- (1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).
  - (2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.
  - (3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.
  - (4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187.
  - (5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### G.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

- (a) The provisions of 40 CFR 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section G.2, except when otherwise specified in 40 CFR 60, Subpart Y.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

### G.2.2 New Source Performance Standards for Coal Preparation Plants [40 CFR 60, Subpart Y] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Y (included as Attachment B of the permit), which are incorporated by reference in 326 IAC 12:

- (1) 40 CFR 60.250;
- (2) 40 CFR 60.251;
- (3) 40 CFR 60.252;
- (4) 40 CFR 60.253(a)(1);
- (5) 40 CFR 60.253(b); and
- (6) 40 CFR 60.254.

### SECTION G.3

#### Facility Description [326 IAC 2-7-5(15)]:

The No.1 and No. 2 Kiln baghouses (45), (49), and their associated cooler(s), and processed stone handling (PSH) operation system(s)

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### G.3.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source except when otherwise specified in Table 8 to 40 CFR 63 Subpart AAAAA.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

#### G.3.2 National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants [40 CFR 63, Subpart AAAAA]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart AAAAA (included as Attachment C of the permit), which are incorporated by reference in 326 IAC 20-1:

- (a) 40 CFR 63.7080
- (b) 40 CFR 63.7081
- (c) 40 CFR 63.7082
- (d) 40 CFR 63.7083
- (e) 40 CFR 63.7090
- (f) 40 CFR 63.7111
- (g) 40 CFR 63.7112
- (h) 40 CFR 63.7113
- (i) 40 CFR 63.7114
- (j) 40 CFR 63.7120
- (k) 40 CFR 63.7121
- (l) 40 CFR 63.7130
- (m) 40 CFR 63.7131
- (n) 40 CFR 63.7132
- (o) 40 CFR 63.7133
- (p) 40 CFR 63.7140

- (q) 40 CFR 63.7141
- (r) 40 CFR 63.7142
- (s) 40 CFR 63.7143
- (t) Table 1
- (u) Table 2
- (v) Table 3
- (w) Table 4
- (x) Table 5
- (y) Table 6
- (z) Table 7
- (aa) Table 8

## SECTION G.4

### Facility Description [326 IAC 2-7-5(15)]:

- (a) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.
- (b) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.
- (c) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.
- (d) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### G.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) Pursuant to 40 CFR 63. 63.1155, the Permittee shall comply with the provisions of 40 CFR Part 63 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the Pickle Line except as otherwise specified in 40 CFR Part 63, Subpart CCC.
- (b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

### G.4.2 National Emission Standards for Hazardous Air Pollutants for Steel Pickling-HCl Process Facilities and Hydrochloric Acid Regeneration Plants [326 IAC 20-1-1] [40 CFR 63, Subpart CCC]

The Permittee which engages in the steel pickling-HCl process shall comply with the following provisions of 40 CFR 63, Subpart CCC (included as Attachment D of this permit), with a compliance date of June 22, 2001:

- (1) 40 CFR 63.1155
- (2) 40 CFR 63.1156
- (3) 40 CFR 63.1157(a)
- (4) 40 CFR 63.1159(b)
- (5) 40 CFR 63.1160(a) and (b)
- (6) 40 CFR 63.1161(a) and (b)
- (7) 40 CFR 63.1162(a) and (c)
- (8) 40 CFR 63.1163
- (9) 40 CFR 63.1164

- (10) 40 CFR 63.1165
- (11) 40 CFR 63.1166
- (12) Table 1

## SECTION G.5

### Facility Description [326 IAC 2-7-5(15)]:

One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### G.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

---

(a) The provisions of 40 CFR 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section G.5, except when otherwise specified in 40 CFR 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

### G.5.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60, Subpart Kb] [326 IAC 12]

---

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Kb (included as Attachment E of the permit), which are incorporated by reference in 326 IAC 12:

- (1) 40 CFR 60.110b
- (2) 40 CFR 60.111b
- (3) 40 CFR 60.251
- (4) 40 CFR 60.251

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 OPERATING PERMIT  
CERTIFICATION**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-6577-00316

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-6577-00316

**This form consists of 2 pages**

**Page 1 of 2**

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
  - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

**Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency?    Y    N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-6577-00316

<input type="checkbox"/> Natural Gas Only <input type="checkbox"/> Alternate Fuel burned From: _____ To: _____
--

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature: _____
Printed Name: _____
Title/Position: _____
Phone: _____
Date: _____

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 QUARTERLY REPORT**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Permit No.: 089-16966-00316  
Facility: Slag pits at No.7 Blast Furnace  
Parameter: Throughput of slag  
Limit: 662,550 tons of slag processed at these facilities per 12 consecutive month period.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 QUARTERLY REPORT**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Permit No.: T089-6577-00316  
Facility: No. 1 Electric Arc Furnace Shop  
Parameter: Production of leaded steel  
Limit: 640,900 tons of leaded steel produced per 12 consecutive month period

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF AIR QUALITY  
 COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 QUARTERLY REPORT**

Source Name: ArcelorMittal USA, Inc.  
 Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
 Permit No.: T089-6577-00316  
 Facility: No. 504 Boiler  
 Parameter: Natural Gas Fuel (NG) Usage and Blast Furnace Gas (BFG) Usage  
 NG Limit: less than 492 Million cubic feet (MMCF) per 12 consecutive month period  
 BFG Limit: greater than 3,288,088 Million British thermal units (MMBtu) per 12 consecutive month period

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	COLUMN 1 FUEL USAGE THIS MONTH		COLUMN 2 FUEL USAGE 11 MONTHS		COLUMN 1+2 FUEL USAGE 12 MONTH TOTAL	
	BLAST FURNACE GAS	NATURAL GAS	BLAST FURNACE GAS	NATURAL GAS	BLAST FURNACE GAS	NATURAL GAS
Month 1						
Month 2						
Month 3						

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
 Deviation has been reported on:

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 QUARTERLY REPORT**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Permit No.: T089-6577-00316  
Facility: Project X  
Parameter: Molten Steel  
Limit: The molten steel transferred from the No.4 SP to the LMF and casters at No.2 SP using the rail link constructed in 2009 shall be limited to 3,522,720 tons per 12 consecutive month period.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	COLUMN 1 MOLTEN STEEL TRANSFERRED THIS MONTH	COLUMN 2 MOLTEN STEEL TRANSFERRED 11 MONTHS	COLUMN 1+2 MOLTEN STEEL TRANSFERRED 12 MONTH TOTAL
Month 1			
Month 2			
Month 3			

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: ArcelorMittal USA, Inc.  
Source Address: 3210 Watling Street, East Chicago, Indiana 46312  
Part 70 Permit No.: T089-6577-00316

Months: \_\_\_\_ to Year: \_\_\_\_\_

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	
<b>Permit Requirement</b> (specify permit condition #)	
<b>Date of Deviation:</b>	<b>Duration of Deviation:</b>
<b>Number of Deviations:</b>	
<b>Probable Cause of Deviation:</b>	
<b>Response Steps Taken:</b>	

Form Completed by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**APPENDIX A – EMISSION FACTORS**

**No.7 Blast Furnace and No.5 Boiler House emission points:**

PM

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	0.68
	Natural gas	1.9
	Combination gas (a mix of natural gas and blast furnace gas)	0.68 X Usage of BFG (MMSCF)+ 1.9 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	0.68
	Natural Gas	1.9
	Combination gas (a mix of natural gas and blast furnace gas)	0.68 X Usage of BFG (MMSCF)+ 1.9 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	PM emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	22.0	pound/hour
166, Casthouse No.7 Blast Furnace west baghouse	11.22	pound/hour
169, Coke screening and transfer station baghouse	0.0002	pound/ton of coke
172, Stockhouse coke handling baghouse	0.0009	pound/ton of coke
168, Stockhouse pellet handling baghouse	0.0005	pound/ton of pellet
Slag pit operation at No.7 Blast Furnace	0.045	pound/ton of slag processed
Slag Granulator/Pelletizer	0.087	pound/ton of slag processed
171, Casthouse fugitive emissions	0.03	pound/ton of hot metal

PM<sub>10</sub> (Filterable and Condensable)

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM <sub>10</sub> (Filterable and Condensable)emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	4.51
	Natural gas	7.6
	Combination gas (a mix of natural gas and blast furnace gas)	4.51 X Usage of BFG (MMSCF)+ 7.6 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	4.51
	Natural Gas	7.6
	Combination gas (a mix of natural gas and blast furnace gas)	4.51 X Usage of BFG (MMSCF)+ 7.6 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	PM <sub>10</sub> emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	30.1	pound/hour
166, Casthouse No.7 Blast Furnace west baghouse	19.3	pound/hour
169, Coke screening and transfer station baghouse	0.0001	pound/ton of coke
172, Stockhouse coke handling baghouse	0.0008	pound/ton of coke
168, Stockhouse pellet handling baghouse	0.0005	pound/ton of pellet
Slag pit operation at No.7 Blast Furnace	0.031	pound/ton of slag processed
Slag Granulator/Pelletizer	0.087	pound/ton of slag processed
171, Casthouse fugitive emissions	0.021	pound/ton of hot metal

SO<sub>2</sub>

Stack ID, associated equipment	Type of fuel combusted at the equipment	SO <sub>2</sub> emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	14.7
	Natural gas	0.6
	Combination gas (a mix of natural gas and blast furnace gas)	14.7 X Usage of BFG (MMSCF)+ 0.6 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	14.7
	Natural Gas	0.6
	Combination gas (a mix of natural gas and blast furnace gas)	14.7 X Usage of BFG (MMSCF)+ 0.6 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	SO <sub>2</sub> emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.1774	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.1774	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.578	pound/ton of slag processed
Slag Granulator/Pelletizer	0.1	pound/ton of slag processed
171, Casthouse fugitive emissions	0.01	pound/ton of hot metal

CO

Stack ID, associated equipment	CO emissions factors	Units
167 Casthouse No. 7 Blast Furnace east baghouse	0.56	pounds/tons of hot metal
166 Casthouse No. 7 Blast Furnace west baghouse	2.22	pounds/tons of hot metal
Slag pit operation at No.7 Blast Furnace	0.066	pound/ton of slag processed
Slag Granulator/Pelletizer	0.066	pound/ton of slag processed
Gas Cleaning System	0.131	pound/ton of hot metal
171, Casthouse fugitive emissions	0.012	pound/ton of hot metal

NO<sub>x</sub>

Stack ID, associated equipment	Type of fuel combusted at the equipment	NO <sub>x</sub> emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	23
	Natural gas	104
	Combination gas (a mix of natural gas and blast furnace gas)	23 X Usage of BFG (MMSCF)+ 104 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	23
	Natural Gas	104
	Combination gas (a mix of natural gas and blast furnace gas)	23 X Usage of BFG (MMSCF)+ 104 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	NO <sub>x</sub> emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.0248	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.0248	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.0248	pound/ton of slag processed
Slag Granulator/Pelletizer	0.01	pound/ton of slag processed
171, Casthouse fugitive emissions	0.0012	pound/ton of hot metal

VOC

Stack ID, associated equipment	Type of fuel combusted at the equipment	VOC emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	0
	Natural gas	5.5
	Combination gas (a mix of natural gas and blast furnace gas)	0 X Usage of BFG (MMSCF)+ 5.5 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	0
	Natural Gas	5.5
	Combination gas (a mix of natural gas and blast furnace gas)	0 X Usage of BFG (MMSCF)+ 5.5 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	VOC emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.00922	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.00922	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.00234	pound/ton of slag processed
Slag Granulator/Pelletizer	0.001	pound/ton of slag processed
171, Casthouse fugitive emissions	0.0009	pound/ton of hot metal

Pb

Stack ID, associated equipment	Type of fuel combusted at the equipment	Pb emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	0.0000667
	Natural gas	0.00046
	Combination gas (a mix of natural gas and blast furnace gas)	0.0000667 X Usage of BFG (MMSCF)+ 0.00046 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	0.0000667
	Natural Gas	0.00046
	Combination gas (a mix of natural gas and blast furnace gas)	0.0000667 X Usage of BFG (MMSCF)+ 0.00046 X Usage of NG (MMSCF) Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	Pb emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.0000024	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.00000126	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.0000036	pound/ton of slag processed
Slag Granulator/Pelletizer	0.000001	pound/ton of slag processed
171, Casthouse fugitive emissions	0.00000108	pound/ton of hot metal

**Pulverized Coal Injection Plant emission points:**

PM

Stack ID, associated equipment	PM emissions factors	Units
185, Coal transfer baghouse A	0.00056	pound/ton of coal
186, Coal storage baghouse C	0.00078	pound/ton of coal
187, Coal pulverizer baghouse D	0.99	pound/hour
188, Coal pulverizer baghouse E	0.99	pound/hour
189, Coal storage baghouse F	0.000818	pound/ton of coal
190, Coal storage baghouse G	0.000818	pound/ton of coal
192, Coal unloading system	0.003	pound/ton of coal

PM<sub>10</sub> (Filterable and Condensable)

Stack ID, associated equipment	PM <sub>10</sub> emissions factors	Units
185, Coal transfer baghouse A	0.00056	pound/ton of coal
186, Coal storage baghouse C	0.00078	pound/ton of coal
187, Coal pulverizer baghouse D	0.99	pound/hour
188, Coal pulverizer baghouse E	0.99	pound/hour
189, Coal storage baghouse F	0.000818	pound/ton of coal
190, Coal storage baghouse G	0.000818	pound/ton of coal
192, Coal unloading system	0.0015	pound/ton of coal

**No.1 Lime Plant emission points:**

PM

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.0019

Stack ID, associated equipment	PM emissions factors	Units
47, Lime plant storage silo baghouse	5.53	pound/hour
45 and 49, No.1 and No.2 Lime Kiln baghouses (combined)	7.149	pound/hour
46, Lime plant fugitive control micro-pulse baghouse	0.007	pound/ton of lime
48, Lime plant truck loadout baghouse	0.01	pound/ton of lime

PM<sub>10</sub> (Filterable and Condensable)

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM <sub>10</sub> emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.0608

Stack ID, associated equipment	PM <sub>10</sub> emissions factors	Units
47, Lime plant storage silo baghouse	5.53	pound/hour
45 and 49, No.1 and No.2 Lime Kiln baghouses (combined)	8.0	pound/hour
46, Lime plant fugitive control micro-pulse baghouse	0.007	pound/ton of lime
48, Lime plant truck loadout baghouse	0.0048	pound/ton of lime

SO<sub>2</sub>

Stack ID, associated equipment	Type of fuel combusted at the equipment	SO <sub>2</sub> emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.6

CO

Stack ID, associated equipment	Type of fuel combusted at the equipment	CO emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	84

Stack ID, associated equipment	CO emissions factors	Units
45 and 49, No.1 and No.2 Lime Kiln baghouses	2.0	pound/ton of lime

NO<sub>x</sub>

Stack ID, associated equipment	Type of fuel combusted at the equipment	NO <sub>x</sub> emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	104

VOC

Stack ID, associated equipment	Type of fuel combusted at the equipment	VOC emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	5.5

Pb

Stack ID, associated equipment	Type of fuel combusted at the equipment	Pb emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.00000368

Stack ID, associated equipment	Pb emissions factors	Units
47, Lime plant storage silo baghouse	0.00000595	pound/ton of lime
45 and 49, No.1 and No.2 Lime Kiln baghouses	0.000060568	pound/ton of lime from each kiln
48, Lime plant truck loadout baghouse	0.00000085	pound/ton of lime

**No.2 BOF shop emission points:**

PM

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	1.9
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	1.9

Stack ID, associated equipment	PM emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.0046	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.027	pound/ton of steel
152, Charge Aisle and reloading desulfurization (hot metal station) baghouse	0.026	pound/ton of molten iron handled
150, Truck and ladle hopper baghouse	0.01	pound/ton of flux
151, Flux storage batch baghouse	0.007	pound/ton of flux
153, No.2 BOF Roof Monitor	0.03	pound/ton of steel
158, No.2 BOF Caster Roof Monitor	0.0035	pound/ton of slabs

PM<sub>10</sub> (Filterable and Condensable)

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM <sub>10</sub> emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	7.6
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	7.6

Stack ID, associated equipment	PM <sub>10</sub> emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.0064	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.028	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.0213	pound/ton of molten iron handled
150, Truck and ladle hopper baghouse	0.011	pound/ton of flux
151, Flux storage batch baghouse	0.0071	pound/ton of flux
153, No.2 BOF Roof Monitor	0.01866	pound/ton of steel
158, No.2 BOF Caster Roof Monitor	0.0015	pound/ton of slabs

SO<sub>2</sub>

Stack ID, associated equipment	Type of fuel combusted at the equipment	SO <sub>2</sub> emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.6
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.6

Stack ID, associated equipment	SO <sub>2</sub> emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.07	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.07	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.025	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.014	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.0094	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.0004	pound/ton of steel

CO

Stack ID, associated equipment	Type of fuel combusted at the equipment	CO emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	84
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	84

Stack ID, associated equipment	CO emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	13.55	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	13.55	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.042	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.139	pound/ton of steel
Gas Cleaning System	0.022	pound/ton of steel
153, No.2 BOF Roof Monitor	0.0042	pound/ton of steel

NO<sub>x</sub>

Stack ID, associated equipment	Type of fuel combusted at the equipment	NO <sub>x</sub> emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	100
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	100

Stack ID, associated equipment	NO <sub>x</sub> emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.08	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.08	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.003	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.02	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.0024	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.0006	pound/ton of steel

VOC

Stack ID, associated equipment	Type of fuel combusted at the equipment	VOC emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	5.5
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	5.5

Stack ID, associated equipment	VOC emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.001	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.001	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.005	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.001	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.00015	pound/ton of steel
158, No.2 BOF Caster Roof Monitor	0.002	pound/ton of slabs

Pb

Stack ID, associated equipment	Type of fuel combusted at the equipment	Pb emissions factors (pound/MMSCF of fuel)
147, No. 10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.00046
148, No. 20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.00046

Stack ID, associated equipment	Pb emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.00011	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.00011	pound/ton of steel
154, Ladle metallurgy facility station baghouse	4 E -06	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.00013	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.000001881	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.000023	pound/ton of steel

**No.4 BOF shop emission points:**

PM

Stack ID, associated equipment	PM emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.171	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	22.3	pound/hour
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.00512	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.00512	pound/ton of hot metal
32, RHOB condensers stack	0.0004	pound/ton of steel
33, RHOB material handling stack	0.002	pound/ton of steel
28, Furnace additive bin loading	0.001	pound/ton of alloys
31, Torch cut	0.0035	pound/ton of steel
35, Furnace additive hopper house	0.001	pound/ton of alloys
29, No.4 BOF Roof Monitor	0.03	pound/ton of steel

PM<sub>10</sub> (Filterable and Condensable)

Stack ID, associated equipment	PM <sub>10</sub> emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.177	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	23.74	pound/hour
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.017	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.017	pound/ton of hot metal
32, RHOB condensers stack	0.0002	pound/ton of steel
33, RHOB material handling stack	0.002	pound/ton of steel
28, Furnace additive bin loading	0.001	pound/ton of alloys
31, Torch cut	0.002025	pound/ton of steel
35, Furnace additive hopper house	0.001	pound/ton of alloys
29, No.4 BOF Roof Monitor	0.0183	pound/ton of steel

SO<sub>2</sub>

Stack ID, associated equipment	SO <sub>2</sub> emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.001	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.001	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.0094	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.0094	pound/ton of hot metal
29, No.4 BOF Roof Monitor	0.00003	pound/ton of steel

CO

Stack ID, associated equipment	CO emissions factors	Units
38, No.4 BOF shop off gas scrubber	8.031	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.139	pound/ton of steel
32, RHOB condensers stack	0.0214	pound/ton of steel
Gas Cleaning System 4 BOF	0.047	pound/ton of steel
Gas Cleaning System 4BOF RHOB	0.0925	pound/ton of steel
29, No.4 BOF Roof Monitor	0.0042	pound/ton of steel

NO<sub>x</sub>

Stack ID, associated equipment	NO <sub>x</sub> emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.08	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.02	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.0024	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.0024	pound/ton of hot metal
29, No.4 BOF Roof Monitor	0.0006	pound/ton of steel

VOC

Stack ID, associated equipment	VOC emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.001	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.005	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.001	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.001	pound/ton of hot metal
31, Torch cut	0.002	pound/ton of steel
29, No.4 BOF Roof Monitor	0.00015	pound/ton of steel

Pb

Stack ID, associated equipment	Pb emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.001989	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.000054	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	9.4 E -07	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	9.4 E -07	pound/ton of hot metal
32, RHOB condensers stack	0.000032	pound/ton of steel
33, RHOB material handling stack	6.0 E -07	pound/ton of steel
29, No.4 BOF Roof Monitor	0.000038	pound/ton of steel

**Indiana Department of Environmental Management  
Office of Air Quality**

Technical Support Document (TSD) for a  
Part 70 Administrative Amendment

<b>Source Description and Location</b>
--

<b>Source Name:</b>	<b>ArcelorMittal USA, Inc.</b>
<b>Source Location:</b>	<b>3210 Watling Street, East Chicago, Indiana 46312</b>
<b>County:</b>	<b>Lake</b>
<b>SIC Code:</b>	<b>3312</b>
<b>Part 70 Permit No.:</b>	<b>T089-6577-00316</b>
<b>Administrative Amendment No.:</b>	<b>089-31704-00316</b>
<b>Permit Reviewer:</b>	<b>Madhurima Moulik</b>

<b>Existing Approvals</b>
---------------------------

The source was issued Part 70 Operating Permit No. 089-6577-00316 on September 12, 2006. The source has since received the following approvals:

- (a) First Administrative Amendment No. 089-23628-00316, issued on November 1, 2006.
- (b) Significant Source Modification No. 089-23651-00316, issued on January 3, 2007.
- (c) First Significant Permit Modification No. 089-23470-00316, issued on January 22, 2007.
- (d) Significant Source Modification No. 089-25598-00316, issued on April 21, 2008.
- (e) Second Significant Permit Modification No. 089-25725-00316, issued on July 9, 2008.
- (f) Significant Source Modification No. 089-21207-00316, issued on October 16, 2008.
- (g) Second Administrative Amendment No. 089-26796-00316, issued on August 20, 2008.
- (h) Third Significant Permit Modification No. 089-22044-00316, issued on November 3, 2008.
- (i) Fourth Significant Permit Modification No. 089-18491-00316, issued on May 26, 2010.
- (j) Significant Source Modification No. 089-28917-00316, issued on September 3, 2010.
- (g) Fifth Significant Permit Modification No. 089-28972-00316, issued on November 4, 2010.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

**County Attainment Status**

The source is located in Lake County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148 <sup>th</sup> Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O <sub>3</sub>	Attainment effective May 11, 2010, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> The U. S. EPA has acknowledged in both the proposed and final rulemaking for this redesignation that the anti-backsliding provisions for the 1-hour ozone standard no longer apply as a result of the redesignation under the 8-hour ozone standard. Therefore, permits in Lake County are no longer subject to review pursuant to Emission Offset, 326 IAC 2-3. <b>Effective July 20, 2012, U. S. EPA designated Lake County as marginal nonattainment for the 8-hr ozone standard.</b> Basic nonattainment designation effective federally April 5, 2005, for PM <sub>2.5</sub> .	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. Lake County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
  
- (b) **PM<sub>2.5</sub>**  
 U.S. EPA, in the Federal Register Notice 70 FR 943 dated January 5, 2005, has designated Lake County as nonattainment for PM<sub>2.5</sub>. On March 7, 2005 the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for PM<sub>2.5</sub> promulgated on May 8, 2008. These rules became effective on July 15, 2008. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.
  
- (c) **Other Criteria Pollutants**  
 Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

**Fugitive Emissions**

Since this source is classified as an integrated iron and steel plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

### Description of Proposed Amendment

On April 9, 2012, ArcelorMittal submitted an application requesting an administrative amendment to its Part 70 permit in order to incorporate technical corrections and updates to the net emissions increase calculations for SSM No. 089-29817-00316.

ArcelorMittal USA, Inc. is an existing integrated iron and steel mill and is permitted to operate under T089-6577-00316, issued on September 12, 2006. On November 4, 2010, the Permittee was issued a Significant Source Modification No. 089-29817-00316 for the following emission units and control devices:

- (a) One (1) 561.6 million British thermal units per hour (MMBtu/hr) boiler, identified as Boiler No. 504 to existing No. 5 Boilerhouse fired using the No. 7 Blast Furnace Gas (BFG) generated during the iron making process that is currently being flared, and natural gas as supplemental fuel, including ancillary equipment (deaerator, feedwater pump, BFG supply line, boiler control equipment, etc.) necessary to operate the boiler.
- (b) One (1) Wet Gas Scrubber to be installed at the Ladle Metallurgical Facility (LMF) Station located at the EAF Meltshop to control the SO<sub>2</sub> emissions from the LMF.

The net emission increases for the above project (henceforth referred to as the Boiler 504 project) were below the significance thresholds under 326 IAC 2-2 (Prevention of Significant Deterioration) rules. The following is a summary of the Boiler 504 project:

New emission unit – Boiler 504 (Stack 134a)  
Startup date – July 2012  
Contemporaneous period – July 2012 to September 2005

The Permittee has requested the following changes to the net emissions increase calculations:

- (1) Inclusion of significant emission units (space heaters with maximum heat input of less than 10 mmBTU/hr each), which were inadvertently excluded from the netting analysis for the Boiler 504 project, and were later identified as emissions increases that occurred within the contemporaneous period for the above project.
- (2) Inclusion of an insignificant emission increase as part of the Boiler 504 project, namely the North Lake Cooling Tower upgrade that resulted in an emission increase.
- (3) Inclusion of No. 7 Blast Furnace Flare emissions to account for additional BFG that is not combusted by boilers and may be flared in future.
- (4) Inclusion of a new plasma arc sample coupon cutter (an insignificant activity) projected to be installed prior to the expected startup of Boiler 504 in July 2012.
- (5) Correction of a contemporaneous emission decrease calculation associated with the shutdown and removal of two (2) generators (GS038 and GS040) as included in SPM No. 089-29271-00356 to an administrative permit issued to ArcelorMittal's contractor, Beemsterboer Slag and Ballast Corp.
- (6) Inclusion of an emission increase from new construction at ArcelorMittal's contractor Phoenix Services, LLC as included in SSM No. 089-31479-00538 issued on May 22, 2012.

The following administrative changes will be made to the Part 70 permit No. T089-6577-00316:

- (i) Insignificant activities will be included in the netting analysis and will be added to the permit.
- (ii) Descriptive changes will be made to PSD minor limitation conditions for the 504 Boiler project.

**Enforcement Issues**

There are no pending enforcement actions related to this amendment.

**Emission Calculations**

See Appendix A of this Technical Support Document for detailed emission calculations.

**Permit Level Determination – Part 70**

This modification will be incorporated into the Part 70 Operating Permit through an administrative amendment issued pursuant to 326 IAC 2-7-11(a)(7) because the changes to the permit are changes that revise "descriptive information where the revision will not trigger a new applicable requirement or violate a permit term".

**Permit Level Determination – PSD or Emission Offset or Nonattainment NSR**

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this Part 70 source modification and permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Emission Units	Limited Potential to Emit (tons/year)						
	PM	PM10	PM2.5	SO2	NOx	VOC	CO
Boiler No. 504 combusting BFG PTE, tons/yr (3,288,088 MMBtu/yr)	11.93	82.96	82.96	243.95	82.97	0.005	227.35
Boiler No. 504 Standby/Supplemental NG Fuel PTE, tons/yr (157,000 MMBtu/yr)	0.15	0.58	0.58	0.05	7.70	0.42	6.46
Boiler No. 504 Pilot Light PTE, tons/yr	0.31	1.25	1.25	0.10	16.40	0.90	13.78
Sub-Total (Emissions Increase from No. 504 Boiler) – Original Calculations in SSM 089-28917-00316	12.39	84.79	84.79	244.09	107.07	1.33	247.59
<b>Subtotal (Updated) Boiler 504 including Cooling Tower</b>	<b>12.69</b>	<b>85.11</b>	<b>85.11</b>	<b>244.16</b>	<b>107.1</b>	<b>1.33</b>	<b>247.66</b>
Significant Level	25	15	10	40	40	40	100
Whether Significant Increase and Whether Triggers Netting?	No	Yes	Yes	Yes	Yes	No	Yes

Netting Analysis (Updated)									
Emission Units	PM	PM10	PM2.5	SO2	NOx	VOC	CO		
<b>Contemporaneous Increase Main Plant</b>									
No. 2 Galvanizing Line Burner Replacements	Netting not triggered	0.7	0.7	0.06	19.72	Netting not triggered	7.8		
Aluminizing Line		4.53	4.53	0.02	3.77		3.16		
LMF Lime Silo		0.86	0.86	0.0	0.0		0.0		
Iron ladle Burner (18 mmBTU)		0.29	0.29	0.02	3.86		3.25		
No. 4 SP New Heater		0.33	0.33	0.03	4.29		3.61		
No. 2 SP Leaded Steel to EAF		0.0	0.0	0.0	0.0		0.0		
No. 4 SP and No. 2 SP Consolidation (Project X)		3.55	3.55	14.04	29.76		23.58		
Emergency Generator at IT Bldg		0.03	0.03	0.0	3.52		5.76		
<i>Natural Gas Heaters (not included in SSM No. 089-28917-00316)</i>		0.90	0.90	0.10	12.0		10.01		
<i>Plasma Arc Cutters (not included in SSM No. 089-28917-00316)</i>		0.42	0.42	0.0	0.0		0.0		
<b>Subtotal</b>		<b>11.62</b>	<b>11.62</b>	<b>14.27</b>	<b>76.93</b>		<b>57.17</b>		
<b>Contemporaneous Increases Contractors</b>									
Edward C. Levy - conveyors/stackers (2006)	Netting not triggered	5.78	2.05	0.0	0.0	Netting not triggered	0.0		
Beemsterboer Slag-Blending Plant (2009)		6.62	0.93	0.0	0.0		0.0		
Phoenix-replaced MultiServ (2009)		14.96	4.05	0.0	0.0		0.0		
Mid-Continent Coal & Coke - conveyor, generator (2007)		3.11	1.10	0.69	10.46		2.25		
Fritz Enterprises-screen, generator (2008)		2.60	0.92	0.90	13.60		2.90		
Beemsterboer Slag-unpermitted units (2005-2006)		1.25	1.25	1.17	17.63		3.80		
Mid-Continent Coal & Coke - conveyor, generator (2009)		9.14	9.14	0.69	10.46		2.25		
Phoenix Services (earlier known as Tube City IMS) (2010)		19.58	6.27	1.20	18.50		4.00		
Phoenix Services (2010)		7.15	5.22	0.0	0.0		0.0		
<i>Phoenix Services (2012)</i>		6.34	2.47	0.0	0.0		0.0		
<b>Subtotal</b>			<b>76.53</b>	<b>33.40</b>	<b>4.65</b>		<b>70.65</b>		<b>15.2</b>

Netting Analysis (Updated)							
Emission Units	PM	PM10	PM2.5	SO2	NOx	VOC	CO
<b>Contemporaneous Decreases Main Plant</b>							
No. 7 Blast Furnace Gas Flare Emissions (due to diversion to 504 boiler)	Netting not triggered	-82.96	-82.96	-243.95	-82.97	Netting not triggered	-227.35
Indiana Harbor West - Boilerhouse Oil Restriction (2010)		-11.40	-7.54	-173.29	-4.95		0.0
No. 3 Galvanizing Line (2006) shutdown		-1.20	-1.20	-0.09	-49.0		-1.90
No. 4 Aluminizing Line (2006) shutdown		-1.08	-1.08	-0.09	-44.15		-1.71
No. 4 BOF Mold Fume Exhaust Baghouse - controls		-22.50	-22.50	0.0	0.0		0.0
No. 4 SP MACT scrubber - controls		-26.02	-25.24	0.0	0.0		0.0
<b>Subtotal</b>		<b>-145.16</b>	<b>-140.16</b>	<b>-417.42</b>	<b>-181.07</b>		<b>-230.96</b>
<b>Contemporaneous Decreases Contractors</b>							
Multiserv-shutdown (2009)	Netting not triggered	-7.38	-3.62	0.0	0.0	Netting not triggered	0.0
Heckett Multiserv-shutdown (2010)		-13.0	-2.55	0.0	-0.51		-0.43
Heritage - shutdown (2010)		-4.50	-0.80	0.0	0.0		0.0
Beemsterboer Slag No. 1 - replace GS043 with powerline		-0.34	-0.28	-0.03	-18.91		-5.02
Beemsterboer Slag North End Pellet Crushing Plant - replace diesel generators with powerline		-0.27	-0.22	-0.02	-14.87		-3.95
<b>Subtotal</b>		<b>-25.49</b>	<b>-7.47</b>	<b>-0.05</b>	<b>-34.29</b>		<b>-9.4</b>
Net Emissions Change		<b>2.61</b>	<b>-17.5</b>	<b>-154.54</b>	<b>39.32</b>		<b>79.67</b>
Significant Level		15	10	40	40		100
Significant?	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>	<b>N</b>		

**Federal Rule Applicability Determination**

The federal rule applicabilities remain unchanged as a result of this modification.

**State Rule Applicability Determination**

**326 IAC 2-2 (PSD)**

PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

**Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance

Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The Compliance Determination Requirements applicable to this modification are as follows:

There is no change to compliance determination requirements.

The compliance monitoring requirements applicable to this modification are as follows:

There is no change to compliance monitoring requirements.

### Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T089-6577-00316. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

- (a) Section A.1 has been modified to update the designation status of Lake County.
- (b) Conditions D.6.5 and D.12.6 have been amended to modify the details of the netting analysis for the No. 504 Boiler.

#### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary Integrated Iron and Steel Mill.

Source Address:	3210 Watling Street, East Chicago, Indiana 46312
General Source Phone Number:	(219) 391-2133
SIC Code:	3312
County Location:	Lake County
Source Location Status:	<del>Nonattainment for PM2.5</del> Attainment for all <del>other</del> criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and <del>Nonattainment</del> NSR Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

#### D.6.5 PM10 and PM2.5 PSD and ~~Nonattainment~~ NSR Minor Limits [326 IAC 2-2] [326 IAC 2-4.1-5]

Prior to the operation of the No. 504 Boiler and thereafter:

- (a) The PM10 and PM2.5 emissions from the No. 4 off-gas scrubber system, exhausting through stack 38, associated with the two (2) BOFs, identified as No. 50 and No. 60 shall be limited to 40.79 pounds hour and 39.57 pounds per hour, respectively. These limits are for filterable PM10 and filterable PM2.5 only.
- (b) The No. 4 BOF Shop Mold Fume Exhaust baghouse shall be in operation at all times that the molds are in operation and the PM10 and PM2.5 emissions from this Baghouse shall be limited to 0.41 pound per hour for each pollutant. These limits are for filterable PM10 and filterable PM2.5 only.

- (c) The Permittee shall not utilize the bottom stirring process (installed during the vessel reline in 2008) at the No.60 BOF vessel in the No.4 Steel Production Shop (No.4 SP) in support of the No. 504 Boiler project.
- (d) The total molten steel transferred from the No.4 SP to the LMF and Casters at No.2 Steel Production Shop (No.2 SP) using the rail link constructed in 2009 (designated as Project X) shall not exceed 3,522,720 tons per twelve consecutive month period, with compliance determined at the end of each month.

Compliance with this Condition, including Condition D.13.5, Condition D.12.6 of this permit, Condition D.1.6, Condition D.7.5 in SPM 089-29300-00536 ~~00318~~ of ArcelorMittal Indiana Harbor, LLC (West Plant), Conditions D.1.3, D.3.1 and D.3.2 in SPM No. 089-29271-00356 of Beemsterboer Slag Corporation, and Condition D.1.3 in SPM No. 089 29316-00537 of Beemsterboer Slag Corporation shall result in total emission reductions of ~~87.12 tons of~~ in PM10 per year, ~~64.48 tons of~~ PM2.5 per year, ~~173.52 ton of~~ SO2 per year, ~~128.92 tons of~~ NOx per year and ~~12.09 tons of~~ and CO per year and shall render 326 IAC 2-2, PSD and ~~326 IAC 2-1.1-5, Nonattainment NSR~~ not applicable to the No. 504 Boiler permitted in SSM 089-28917-00316.

D.12.6 PM10, PM2.5, SO2, NOx and CO PSD and ~~Nonattainment NSR~~ Credit Limits [326 IAC 2-2] ~~[326 IAC 2-1.1-5]~~

The No. 3 Galvanizing Line and No. 4 Aluminizing Line shall be permanently shutdown and removed from operation, prior to the operation of the No. 504 Boiler.

Compliance with this Condition, including Conditions D.6.5 and D.13.5 of this permit, Condition D.1.6, Condition D.7.5 in SPM 089-29300-00536 of ArcelorMittal Indiana Harbor, LLC (West Plant), Conditions D.1.3, D.3.1 and D.3.2 in SPM No. 089-29271-00356 of Beemsterboer Slag Corporation, and Condition D.1.3 in SPM No. 089- 29316-00537 of Beemsterboer Slag Corporation shall result in total emission reduction of ~~87.12 tons of~~ PM10 per year, ~~64.48 tons of~~ PM2.5 per year, ~~173.52 ton of~~ SO2 per year, ~~128.92 tons of~~ NOx per year and ~~12.09 tons of~~ CO per year and shall render 326 IAC 2-2, PSD and ~~326 IAC 2-1.1-5, Nonattainment NSR~~ not applicable to the source modification permitted in SSM 089-28917-00316.

### Conclusion and Recommendation

This proposed administrative amendment shall be subject to the conditions of the attached proposed Part 70 Administrative Amendment No. 089-31704-00316. The staff recommends to the Commissioner that this Part 70 Administrative Amendment be approved.

### IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Madhurima Moulik at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-0868 or toll free at 1-800-451-6027 extension 3-0868.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
**Boiler 504 Project - Re-calculation Netting Analysis**  
 Administrative Amendment No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima D. Moulik  
 Date: 9-May-12  
**Original Application Submittal Date: January 26, 2012 (SSM No. 089-28917-00316)**

**Limited PTE for Project Boiler 504 - Original calculations**

MMBtu/hr	Potential Throughput	Throughput Limits
561.6 Total Heat Input (BFG + NG)	mmBTU/year	
38.2 Pilot Heat Input Rate (NG) >>>>	334,632.00	334,632.00 MMBtu/year Pilot NG
523.35 Max. Heat Input Rate (BFGas) >>>	4,584,546.00	3,287,119.48 71.7% utilization rate (BFG)
314 Standby/Supplemental Fuel (NG) >>>	157,000.00	157,000.00 MMBtu/year @ 500 hrs/yr (supplemental NG)
352.2 Total heat input pilot + standby fuel (NG)	2,750,640.00	
	3,085,272.00	
	MMBtu/year >>>>>>	
	MMBtu/year >>>>>>	
	MMBtu/year @ 500 hrs/yr >>>>	
	MMBtu/year @ 8760 hrs/yr	
	Total heat input pilot + standby fuel (NG) @ 8760 hrs/yr	

**New Boiler, ID 504**

Limited Potential To Emit	Pollutant						
	PM*	PM10	PM2.5	SO2	NOx	VOC	CO
NG Emission Factor in lb/MMBtu	0.0019	0.007	0.007	0.001	0.098 **see below	0.005	0.082
Pilot Light PTE, tons/yr (334,632 MMBtu/yr)	0.31	1.25	1.25	0.10	16.40	0.84	13.78
BFG Emission Factor in lb/MMBtu	0.007	0.050	0.050	0.148	0.050	0.000	0.138
Boiler 504 combusting BFG PTE, tons/yr (3,288,088 MMBtu/yr)	11.93	82.96	82.96	243.95	82.97	0.00	227.35
Boiler Standby/Supplemental NG Fuel PTE, tons/yr (157,000 MMBtu/yr)	0.15	0.58	0.58	0.05	7.70	0.39	6.46
Boiler 504 Total Limited PTE, tons/year	12.39	84.79	84.79	244.09	107.07	1.23	247.59
PSD and Nonattainment NSR Significant Levels	25.0	15.0	10.0	40.0	40.0	40.0	100.0
Significant Increase?	No	Yes	Yes	Yes	Yes	No	Yes

Since PM10, PM2.5, SO2, NOx, and CO are emitted in significant levels from the proposed modification netting is triggered for these pollutants.  
 (summation of contemporaneous emissions increases and decreases for the last 5 years prior to the modification must be considered in the analysis).

\*PM emission factor is filterable PM only. PM10 and PM2.5 emission factor is condensable and filterable emissions.

\*\*NG Emission Factors for NOx: Uncontrolled = 280 (pre-NSPS) or 190 (post-NSPS), Low NOx Burner = 140, Flue gas recirculation = 100 (See Table 1.4-1)

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

NG Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-01-006-01, 1-01-006-04

(AP-42 Supplement D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

= Throughput (MMBtu/yr) x EF (lb/MMBtu) x ton/2000 lb

Blast Furnace Gas EF = CO (WEBFIRE), NOx (vendor), PM, PM10/PM2.5 & SO2 (Arcelor's Eng'g estimate to be verified through stack testing)

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704-00316

**Boiler 504 Project - Re-calculation Netting Analysis**

Reviewer: Madhurima Moulik  
 Date: 9-May-12

**Original Application Submittal Date: January 26, 2012 (SSM No. 089-28917-00316)**

**(Note: PTE calculations are unchanged from emission calculations as included in SSM No. 089-28917-00316)**

Heat Input Capacity  
 MMBtu/hr

561.6	Total Heat Input (BFG + NG)	Potential Throughput				
38.2	Pilot Heat Input Rate (NG)	334,632.00	MMBtu/year	328.07	MMCF/year (NG) pilot	
523.35	Max. Heat Input Rate (BFGas)	4,584,546.00	MMBtu/year	4,494.65	MMCF/year	
314	Standby/Supplemental Fuel (NG)	157,000.00	MMBtu/year @ 500 hrs/yr	153.92	MMCF/yr @ 500 hrs/yr NG supplemental	
		2,750,640.00	MMBtu/year @ 8760 hrs/yr	2,696.71	MMCF @ 8760 hrs/yr NG supplemental	
561.6	Total Maximum Heat Input + pilot (NG)		@ 500 hrs >>>	157.00	Total NG Pilot + supplemental (Unlimited)	
			MMCF	3,024.78	Total NG Pilot + supplemental (Limited)	
				485		

NATURAL GAS HAPs - Organics						
Emission Factor in lb/MMcf	Benzene 2.1E-03		Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.18E-03		1.81E-03	1.13E-01	2.72E+00	5.14E-03

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 5.0E-04		Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	7.56E-04		1.66E-03	2.12E-03	5.75E-04	3.18E-03

Methodology is the same as page 1.

Worst Single HAP (hexane) Unlimited Fuel	2.72E+00
Combined HAPs Unlimited Fuel	2.85E+00
Worst Single HAP (hexane) Limited Fuel	4.37E-01
Combined HAPs Limited Fuel	4.58E-01

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Note: No HAP PTE calculation was done for this boiler using the Blast Furnace Gas, since Blast Furnace Gas has virtually no organic HAP, as discussed by EPA in 69 Federal Register 55230, September 13, 2004.

**North Lake Cooling Tower Upgrade**

**Boiler 504 Project - Re-calculation Netting Analysis**

Administrative Amendment No.: 089-31704

Plant No.: 089-00316

Reviewer: Madhurima D. Moulik

Date: 9-May-12

**North Lake Cooling Tower Upgrade (not included in original netting analysis in SSM No. 089-28917-00316)**

Old recirculation Rate = 53500 gallons per minute; new rate = 60000 gallons per minute

Total Liquid Drift Rate = 0.005% (Based on sampling result from North Lake dated 9/24/10)

Total annual drift increase =

Particulate emissions (dry drift)= 170820 gal/yr

600.2 lb/yr

**PTE= 0.3 tons/yr**

**Methodology:**

Cooling tower emissions increase has been calculated as the difference due to new vs old recirculation rate.

Assumption: Emissions of PM=PM-10=PM2.5

Old recirculation Rate = 53500 gallons per minute; new rate = 60000 gallons per minute

Annual Drift Increase = increase in circulation rate x fraction drift x min/yr

Drift is water droplets entrained in the cooling tower exit air stream

Particulate emissions = Total annual drift increase x density of recirculated water (10.01 lb/gal) x hardness of water (351 ppm)/1000000

Company Name: ArcelorMittal USA, LLC

Address City IN Zip: 3210 Watling St., East Chicago, IN 46312

**Boiler 504 Project - Re-calculation Netting Analysis**

Administrative Amendment No.: 089-31704

Plant No.: 089-00316

Reviewer: Madhurima D. Moulik

Date: 14-May-12

**Additional Contemporaneous Increases not included in original netting analysis)**

New Plasma Cutters

Facility	Max. cutting rate (in/min)	Potential to Emit (tons/yr)		
		PM	PM-10	PM2.5
84 in. Strip Mill Cutter	215	0.220	0.220	0.220
QA Lab Cutter	193.5	0.198	0.198	0.198
Total		0.419	0.419	0.419

Emission Factor lb PM/1000 inches, 1 in. thick		
Plasma Arc	0.0039	0.0039

Methodology

All emission factors assume PM is equal to PM10 and PM2.5

Emission factors for plasma cutting are from American Welding Society (AWS).

Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (average emissions of 0.25 g/min)

$$EF = 0.25 \text{ g/min} \times 0.0022 \text{ lb/g} \times 1000 \text{ in} / (3.5 \text{ m/min} \times 39.37 \text{ in/m})$$

$$EF = 0.0039 \text{ lb/1000 in cut}$$

$$\text{Emissions (lb/hr)} = \text{No. of stations} \times \text{max. cutting rate (in/min)} \times 60 \text{ min/hr} \times EF \text{ (lb/1000 in cut)} / 1000 \text{ in}$$

$$\text{Emissions (tons/yr)} = \text{Emissions (lb/hr)} \times 4.38$$

**Appendix A: Emissions Calculations  
Insignificant Activities - Unpermitted Heaters  
MM BTU/HR <100**

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Permit Reviewer: Madhurima Moulik  
 Date: 11-May-12

**Boiler 504 Project - Re-calculation Netting Analysis**

**Additional Contemporaneous Increases not included in original netting analysis**

Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
27.4	1000	239.8

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.2	0.9	0.9	0.1	12.0	0.7	10.1

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.  
 PM2.5 emission factor is filterable and condensable PM2.5 combined.  
 \*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas  
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03  
 Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See next page for HAPs emissions calculations.

updated 7/11

**Appendix A: Emissions Calculations  
 Insignificant Activities - Unpermitted Heaters  
 MM BTU/HR <100  
 HAPs Emissions**

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Permit Reviewer: Madhurima Moulik  
 Date: 11-May-12

**Boiler 504 Project - Re-calculation Netting Analysis**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	2.518E-04	1.439E-04	8.994E-03	2.159E-01	4.077E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	5.996E-05	1.319E-04	1.679E-04	4.557E-05	2.518E-04

The five highest organic and metal HAPs emission factors are provided above.  
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.  
 See next page for Greenhouse Gas calculations.

updated 7/11

**Appendix A: Emissions Calculations  
 Insignificant Activities - Unpermitted Heaters  
 MM BTU/HR <100**

**Greenhouse Gas Emissions**

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Permit Reviewer: Madhurima Moulik  
 Date: 11-May-12

**Boiler 504 Project - Re-calculation Netting Analysis**

Greenhouse Gas			
Emission Factor in lb/MMcf	CO2	CH4	N2O
	120,000	2.3	2.2
Potential Emission in tons/yr	14,391	0.3	0.3
Summed Potential Emissions in tons/yr	14,391		
CO2e Total in tons/yr	14,479		

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.  
 Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.  
 Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
 $\text{Emission (tons/yr)} = \text{Throughput (MMCF/yr)} \times \text{Emission Factor (lb/MMCF)} / 2,000 \text{ lb/ton}$   
 $\text{CO2e (tons/yr)} = \text{CO2 Potential Emission ton/yr} \times \text{CO2 GWP (1)} + \text{CH4 Potential Emission ton/yr} \times \text{CH4 GWP (21)} + \text{N2O Potential Emission ton/yr} \times \text{N2O GWP (310)}.$

updated 7/11

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
**Boiler 504 Project - Re-calculation Netting Analysis**  
 Administrative Amendment No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima D. Moulik  
 Date: 25-May-12

**Updated Netting Analysis**

Project Emission Increase Calculations (PEI) = (PTE-BAE) + contemporaneous emissions changes

PTE = Potential Emissions Increase

BAE = Baseline Actual Emissions

Date of permit issuance/construction commencement:	Sep-10
Projected date of commencement of operation:	Jul-12
Contemporaneous Period:	Sep-05 to Jul-12

Emission Units	PEI (tons/yr)							
	PM	PM-10	PM2.5	SO2	VOC	NOx	CO	Pb
Boiler (504) (as calculated in SSM No. 089-28917-00316) includes NG backup+pilot	12.39	84.81	84.81	244.16	1.23	107.10	247.66	0.000756
North Lake Cooling Tower	0.30	0.30	0.30	0.00	0.00	0.00	0.00	0
<b>Subtotal (updated)</b>	<b>12.69</b>	<b>85.11</b>	<b>85.11</b>	<b>244.16</b>	<b>1.23</b>	<b>107.10</b>	<b>247.66</b>	<b>0.000756</b>
Significant?	No	Yes	Yes	Yes	No	Yes	Yes	No

Total contemporaneous increases including contractors	Netting not triggered	88.15	45.02	18.92	Netting not triggered	147.58	72.21	Netting not triggered
Total contemporaneous decreases including contractors		-112	-89.33	-173.52		-132.4	-13.01	
No. 7 Blast Furnace Flares decrease		-82.98	-82.98	-244.01		-83	-227.41	
Total increase/decrease		-21.72	-42.18	-154.45		39.28	79.45	
Significant Emission Rate		15	10	40		40	100	
<b>Major Modification?</b>		<b>No</b>	<b>No</b>	<b>No</b>		<b>No</b>	<b>No</b>	

\*Emissions decrease due to BFG not being combusted by No. 7 flare due to diversion to 504 Boiler

*Proposed Operating Limits*

Maximum natural gas combustion	491,637 mmBTU/12 month
Minimum BFG combustion at 504 Boiler	3,288,088 mmBTU/12 month
504 boiler annual utilization factor for BFG	71.70%

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Permit Reviewer: Madhurima Moulik  
 Date: 9-May-12

**Baseline Actual Emissions (BAE) due to BFG Combustion at No. 7 Blast Furnace Flare**

Baseline actual BFG Combustion at the No. 7 Blast Furnace Flare (2006-2007)	4,680,706.0	MMBtu/year
---	-------------	------------

	Pollutant					
	PM	PM10/PM2.5	SO2	NOx	VOC	CO
BFG Emission Factor in lb/MMBtu	0.007	0.050	0.148	0.232	0.000	0.138
Basis of Emission Factor	Stack Test 12/99	Stack Test 12/99	Vendor	WebFire	*	WebFire
Actual Emissions in tons/yr	16.99	118.13	347.37	543.50	0.00	323.74

Actual Emission (tons/yr) = Actual Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
 = Actual Throughput (MMBtu/yr x EF (lb/MMBtu) x ton/2000 lb

Company Name: ArcelorMittal USA, LLC  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312

AA No.: 089-31704  
 Plant No.: 089-00316  
 Permit Reviewer: Madhurima Moulik  
 Date: 9-May-12

**Boiler 504 Project - Re-calculation Netting Analysis**

**Annual Calculation of No. 7 Blast Furnace Gas Generated**

Year	BFG MMcf				Heating Value (BTU/CF)	#7 BF Operating Hrs	NG
	#5 Boiler House	#7 BF Stoves	#7 BF Bled & #5 BH Bled	#7 BF Total BFG			#5 BH
2000	103,902	45,212	29,283	178,397	89.13		477
2001	100,288	42,863	19,489	162,639	87.02		483
2002	92,790	40,498	19,493	152,780	87.6		490
2003	71,244	33,902	13,963	119,109	85.1		420
2004	103,105	50,380	33,870	187,356	95.46		520
2005	101,374	49,118	30,767	181,259	95.41		924
2006	98,824	66,139	47,737	212,700	100.65	8,501	1221
2007	99,238	69,805	46,782	215,825	97.44	8,593	865
2008	99,371	60,946	43,375	203,692	96.55	8,390	1086
Avg 2004-5	102,240						
Avg 2006-7	99,031		47,260	214,262	99.04		<b>1,043</b>
Avg 2007-8	99,305		45,079	209,759	96.99		<b>976</b>

Period	BFG MMcf			
	#5 Boiler House	#7 BF Stoves	#7 BF Bled & #5 BH Bled	#7 BF Total Gas
2004-5	102,240	49,749	32,319	184,307
2006-7	99,031	67,972	47,260	214,262
2007-8	99,305	65,375	45,079	209,759
BAE 2006-7	99,031		47,260	214,262

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704-00316  
 Permit Reviewer: Madhurima Moulik  
 Date: 6-Jun-12  
**Boiler 504 Project - Re-calculation Netting Analysis**

Date Original Application Received: Jan. 26, 2010

(Note: The new projected date for commencement of operation is July 2012. Therefore the contemporaneous period has changed to Sep 05 to July 2012)

Original projected date of permit issuance / construction commencement: Sep-10  
 Original projected date of operation of 504 Boiler will commence: Mar-12

Contemporaneous Period: Sep-05 to Mar-12				Regulated NSR Pollutants Emission (tons/yr)								Source/Comments
Project	Location	Date Change Occurred	Permit No	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC	NO <sub>x</sub>	CO	Pb	
<b>Contemporaneous Increases</b>												
No. 2 Galvanizing Line Burner Replacements	West	Oct-05	089-20921-00318	Netting not triggered	0.7	0.7	0.06	Netting not triggered	19.72	7.8	Netting not triggered	Permit's TSD
Aluminizing Line	West	Sep-06	089-23361-00318		4.53	4.53	0.02		3.77	3.16		SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO and Pb emissions from Permit's TSD. PM/PM10 and PM2.5 based on allowable emissions limit of 0.03 gr/dscf
LMF Lime Silo	West	May-09	089-24076-00318		0.86	0.86	0.00		0.00	0.00		Permit's TSD
New Iron Ladle Burner (18 MMBtu/hr)	West	Jul-10	089-29339-00318		0.29	0.29	0.02		3.86	3.25		See Reference A-4, Emissions increase reflects acceptance of a 77 MMct/yr operating restriction.
No. 4 SP New Heater	East	Jun-08	PTE		0.33	0.33	0.03		4.29	3.61		PTE for the new 10 MMBtu/hr heater (insignificant activity)
No. 2 SP Leaded Steel to EAF	East	Apr-09	089-25598-00316		0.00	0.00	0.00		0.00	0.00		Permit's TSD
No. 4 SP and No. 2 SP Consolidation (Project X)	East	Jun-09	Baseline to PTE Allowable		3.55	3.55	14.04		29.76	23.58		Baseline to PTE Allowable. See Page 15 of 22 of this spreadsheet for detailed calculations.
Emergency Generator at IT Bldg	East	Jan-10	Insignificant - No Permit		0.03	0.03	0.00		3.52	5.76		Based on maximum 500 hours/year
Natural Gas Heaters (additional)	East and West	2006-2009	Insignificant		0.90	0.90	0.10		12.00	10.01		
Plasma Arc Cutters (additional)	West	May-12	Insignificant	0.42	0.42	0.00	0.00	0.00				
<b>Contemporaneous and Creditable Emissions Increases</b>					<b>11.62</b>	<b>11.62</b>	<b>14.27</b>		<b>76.93</b>	<b>57.17</b>		
<b>Contemporaneous Decreases</b>												
Indiana Harbor West - Boilerhouse Oil Restriction	West	Upin issuance of SSM No. 089-28917-00316	Cessation of Residual Oil Usage	Netting not triggered	(11.40)	(7.54)	(173.29)	Netting not triggered	(4.95)	---	Netting not triggered	See Reference A-7, Enforceable permit condition prohibiting combustion of fuel oil at the IH West Boilers.
No. 3 Galvanizing Line	East	Dec-06	Shutdown		(1.20)	(1.20)	(0.09)		(49.00)	(1.90)		
No. 4 Aluminizing Line	East	Dec-06	Shutdown		(1.08)	(1.08)	(0.09)		(44.15)	(1.71)		
<b>No. 4 BOF Mold Fume Exhaust Baghouse(UPDATED)</b>	East	Future - Prior to the date 504 Boiler operation	Existing controls on process		(46.80)	(46.80)	---		---	---		<b>See Reference A-5 (UPDATED), Enforceable emission limitations in the permit.</b>
No.4 SP MACT Scrubber Compliance	East	Future - Prior to the date 504 Boiler operation	Existing controls on process	(26.02)	(25.24)	---	---	---	See Reference A-6			
<b>Contemporaneous and Creditable Emissions Decreases</b>					<b>(86.50)</b>	<b>(81.86)</b>	<b>(173.47)</b>		<b>(98.10)</b>	<b>(3.61)</b>		

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No. : 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date Application Received: 14-May-12

**(Note: The new projected date for commencement of operation is July 2012. Therefore the contemporaneous period has changed to Sep 05 to July 2012)**

**Contemporaneous Increases and Decreases at Contractors Plants**

Original projected date of permit issuance / construction commencement: Sep-10  
 Original projected date of operation of 504 Boiler will commence: Mar-12

**CONTRACTOR SOURCES**

Project	Location	Date Change Occurred	Permit No	Regulated NSR Pollutants Emission (tons/yr)								Source/Comments
				PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	VOC	NO <sub>x</sub>	CO	Pb	
<b>Contemporaneous Increases</b>												
Edward C. Levy Company-add'l conveyors/stackers	West	Aug-06	089-23078-00339	Netting not triggered	5.78	2.05	0.00	Netting not triggered	0.00	0.00	Netting not triggered	Permit TSD
Beemsterboer Slag-Blending Plant	West	Mar-09, future generators replace with powerline	Modification to 089-26983-00537		6.62	0.93	0.00		0.00	0.00		See Reference A-1, Replace generators with line power.
Phoenix-replaced MultiServ	West	Jun-09	089-27217-00538		14.96	4.05	0.00		0.00	0.00		Permit TSD
Mid-Continent Coal and Coke-add'l conveyor & generator	East	Aug-07	089-25009-00371		3.11	1.10	0.69		10.46	2.25		Permit TSD
Fritz Enterprises-add'l screen & generator	East	Mar-08	089-25603-00465		2.60	0.92	0.90		13.60	2.90		Permit TSD
Beemsterboer Slag-unpermitted units permitted (2005-2006 units included here)	East	Mar-09, future fuel usage restriction	Modification to 089-24225-00356		1.25	1.25	1.17		17.63	3.80		See Reference A-3, Future fuel usage restriction of 58,113 gallons per year for GS045, GS046.
Mid-Continent Coal and Coke-add'l conveyors & generator	East	Mar-09	089-27364-00371		9.14	9.14	0.69		10.46	2.25		Permit TSD
Tube City IMS-new-now Phoenix	East	Apr-09	089-28058-00536		19.58	6.27	1.20		18.50	4.00		Permit TSD
Phoenix slag chip process	East	Mar-10	089-28902-00536		7.15	5.22	0.00		0.00	0.00		Permit TSD
Phoenix Services LLC (not included in SSM 089-28917-00316)	West	Jun-12	089-31479-00538		6.34	2.47	0.00		0.00	0.00		Permit TSD
<b>Contemporaneous and Creditable Emissions Increases</b>					<b>76.53</b>	<b>33.40</b>	<b>4.65</b>		<b>70.65</b>	<b>15.20</b>		
<b>Contemporaneous Decreases</b>												
MultiServ-shutdown	West	Jun-09	089-27217-00538	Netting not triggered	(7.38)	(3.62)	0.00	Netting not triggered	0.00	0.00	Netting not triggered	Permit TSD
Heckett Multiserv-shutdown	East	Apr-09	089-28058-00536		(13.00)	(2.55)	(0.00)		(0.51)	(0.43)		Tube City Permit TSD (for PM & PM10 emissions) and IDEM Emissions Inventory Database (for actual reported combustion emissions)
Heritage - Shutdown	East	Mar-10	089-29020-00481		(4.50)	(0.80)	0.00		0.00	0.00		IDEM's Emissions Inventory Database, 2005-2006
Beemsterboer Slag No. 1 Slag Plant- Replace GS043 with powerline	East	Future generator replacement with line power	Revision to 089-24225-00356		(0.34)	(0.28)	(0.03)		(18.91)	(5.02)		See Reference A-2, Replace generator with line power.
Beemsterboer Slag North End Pellet Crushing Plant - Replace diesel generators with powerline	East	Future generators replacement with line power	Revision to 089-24225-00365		(0.27)	(0.22)	(0.02)		(14.87)	(3.95)		See Reference A-2, Replace two generators with line power.
<b>Contemporaneous and Creditable Emissions Decreases</b>						<b>(25.49)</b>	<b>(7.47)</b>		<b>(0.05)</b>			<b>(34.29)</b>

AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurma Moullick  
 Date: 21-May-12  
 Date Original Application Received: Jan. 26, 2010

CREDITS (ArcelorMittal East Plant)  
 Emission Unit Name: No.3 Galvanizing Line  
 Source No.: Stack 81  
 Shutdown Date: December 2006

Production	Natural Gas	Steel
(mmcf)	(tons)	(tons)
2003	319.22	218391
2004	310.6	228,415

PM											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		1.90	lb/ton	0.00%	1.90	0.30	0.0692	AP-42
	No.3 Galvanizing Line - Natural Gas	2004	310.60		1.90	lb/ton	0.00%	1.90	0.30	0.0674	AP-42

Filterable PM-10											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		1.90	lb/ton	0.00%	1.90	0.30	0.0692	AP-42
	No.3 Galvanizing Line - Natural Gas	2004	310.60		1.90	lb/ton	0.00%	1.90	0.30	0.0674	AP-42

CO											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		12.05	lb/ton	0.00%	12.05	1.92	0.4391	Test of Stack 84
	No.3 Galvanizing Line - Natural Gas	2004	310.60		12.05	lb/ton	0.00%	12.05	1.87	0.4273	Test of Stack 84

NOx											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		311.20	lb/ton	0.00%	311.20	49.67	11.3403	AP-42
	No.3 Galvanizing Line - Natural Gas	2004	310.60		311.20	lb/ton	0.00%	311.20	48.33	11.0341	AP-42

VOC											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		5.50	lb/ton	0.00%	5.50	0.88	0.2004	AP-42
	No.3 Galvanizing Line - Natural Gas	2004	310.60		5.50	lb/ton	0.00%	5.50	0.85	0.1950	AP-42
No.3 Galv. Line - Chemical Coating Section	No.3 Galv. Line - Chemical Coating Section	2003	218,391		0.07	lb/ton	0.00%	0.07	7.64	1.7451	Web Fire
	No.3 Galv. Line - Chemical Coating Section	2004	228,415		0.07	lb/ton	0.00%	0.07	7.99	1.8252	Web Fire

Condensable PM-10											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		5.70	lb/ton	0.00%	5.70	0.91	0.2077	AP-42
	No.3 Galvanizing Line - Natural Gas	2004	310.60		5.70	lb/ton	0.00%	5.70	0.89	0.2021	AP-42

SO2											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.3 Galvanizing Line	No.3 Galvanizing Line - Natural Gas	2003	319.22		0.60	lb/ton	0.00%	0.60	0.10	0.0219	AP-42
	No.3 Galvanizing Line - Natural Gas	2004	310.60		0.60	lb/ton	0.00%	0.60	0.093	0.0213	AP-42

Year	Emissions (ton/year)						
	PM	PM-10 Condensible	PM-10 Filterable	CO	NOx	SO2	VOC
2003	0.30	0.91	0.30	1.92	49.67	0.10	8.52
2004	0.30	0.89	0.30	1.87	48.33	0.09	8.85
Average	0.30	0.90	0.30	1.90	49.00	0.09	8.69
Decrease	-0.30	-0.90	-0.30	-1.90	-49.00	-0.09	-8.69

CREDBTS (ArceorMittal East Plant)  
 Emission Unit Name: No.4 Aluminizing Line  
 Source No.: Stack 84  
 Shutdown Date: December 2006

Production	Natural Gas	Steel
	(mmcf)	(tons)
2004	340.8	188,081
2005	226.7	121,359

PM											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		1.90	lb/ton	0.00%	1.90			AP-42
		2005	226.70		1.90	lb/ton	0.00%	1.90	0.32	0.0739	AP-42
					1.90	lb/ton	0.00%	1.90	0.22	0.0492	AP-42

PM-10 (Filterable)											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		1.90	lb/ton	0.00%	1.90			AP-42
		2005	226.70		1.90	lb/ton	0.00%	1.90	0.32	0.0739	AP-42
					1.90	lb/ton	0.00%	1.90	0.22	0.0492	AP-42

CO											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		12.05	lb/ton	0.00%	12.05			Stack Test
		2005	226.70		12.05	lb/ton	0.00%	12.05	2.05	0.4688	Stack Test
					12.05	lb/ton	0.00%	12.05	1.37	0.3118	Stack Test

NOx											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		311.20	lb/ton	0.00%	311.20			Stack test
		2005	226.70		311.20	lb/ton	0.00%	311.20	53.03	12.1070	Stack test
					311.20	lb/ton	0.00%	311.20	35.27	8.0535	Stack test

VOC											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		5.50	lb/ton	0.00%	5.50			AP-42
		2004	188.081		0.07	lb/ton	0.00%	0.07	0.94	0.2140	Web Fire
		2005	226.70		0.07	lb/ton	0.00%	0.07	6.58	1.5029	Web Fire
		2005	121.359		5.50	lb/ton	0.00%	5.50	0.62	0.1423	AP-42
					0.07	lb/ton	0.00%	0.07	4.25	0.9698	Web Fire

PM-10 (condensable)											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		5.70	lb/ton	0.00%	5.70			AP-42
		2005	226.70		5.70	lb/ton	0.00%	5.70	0.97	0.2218	AP-42
					5.70	lb/ton	0.00%	5.70	0.65	0.1475	AP-42

SO2											
Emission Unit	Emission Location	Year	Annual Production Thruput	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emission		Source of Emission Factor
									(tons/yr)	(lbs/hr)	
No.4 Aluminizing Line	No.4 Aluminizing Line - Natural Gas	2004	340.80		0.60	lb/ton	0.00%	0.60			AP-42
		2005	226.70		0.60	lb/ton	0.00%	0.60	0.102	0.0233	AP-42
					0.60	lb/ton	0.00%	0.60	0.068	0.0155	AP-42

Year	Emissions (ton/year)						
	PM	PM10 condensible	PM10 filterable	CO	NOx	SO2	VOC
2004	0.32	0.97	0.32	2.05	53.03	0.10	7.52
2005	0.22	0.65	0.22	1.37	35.27	0.07	4.87
Average	0.27	0.81	0.27	1.71	44.15	0.09	6.20
Decrease	-0.27	-0.81	-0.27	-1.71	-44.15	-0.09	-6.20

**Company Name:** ArcelorMittal USA, Inc. Page 15 of 22 TSD App A  
**Address City IN Zip:** 3210 Watling St., East Chicago, IN 46312  
**AA No.:** 089-31704  
**Plant No.:** 089-00316  
**Reviewer:** Madhurima Moulik  
**Date:** 21-May-12  
**Date Original Application Received:** Jan. 26, 2010

Heat Input Capacity Kw	Throughput
500.0	3.03 MMCF/yr @ 500 hrs/yr 3,091 MMBtu/yr @ 500 hrs/yr

IT Bldg.  
Emergency Generator  
4-stroke Lean Burn

	Pollutant					
	PM	PM10/PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	9.50E-03	1.94E-02	5.88E-04	2.27E+00	2.96E-02	3.72E+00
Emission Factor in lb/MMCF	9.69E+00	1.98E+01	6.00E-01	2.32E+03	3.02E+01	3.79E+03
PTE, tons/yr	0.01	0.03	0.00	3.51	0.05	5.75

### Methodology

All emission factors are based on normal firing.  
 MMBtu = 1,000,000 Btu  
 MMCF = 1,000,000 Cubic Feet of Gas  
 Natural Gas Heating Value = 1020 MMBtu/1 MMCF

Emission Factors are from AP 42, Chapter 3.2, Table 3.2-2  
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
 Emission (tons/yr) = Throughput (MMBtu/yr) x Emission Factor (lb/MMBtu)/2,000 lb/ton

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date: 24-May-12

**Date Original Application (089-28917-00316) Received: Jan. 26, 2010**

REFERENCE A-1--- Emissions Decrease from Generator GS-024 Replaced by Powerline at Beemsterboar Slag Corporation (Plt ID 089-00537)								
Process	Emission Rates (tons/yr)							Comments
	PM	PM10	PM2.5	SO2	VOC	NOx	CO	
Blending Plant with Generator GS-024	24.89	8.95	3.26	2.17	2.66	32.77	7.06	Emission rates provided in Permit No. 089-26983-00537, TSD Page 5 of 14.
Blending Plant without Generator GS-024	22.56	6.62	0.93	0	0	0	0	

Note: This facility has been constructed but has not yet operated. No actual operating data available.  
 Blending plant was permitted with a generator. This generator will be replaced by powerline.

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date : 24-May-12  
**Date Original Application (089-28917-00316) Received: Jan. 26, 2010**

<b>REFERENCE A-2 --- Emissions Decrease from Generator Replaced by Powerline at Beemsterboar No. 1 Slag Plant &amp; LaFarge (PLT ID 089-00365)</b>										
Plant	24- Month Period		Annualized Maximum Fuel Usage Rate* (gallons)	Emission Rates (tons/yr)**						
	Begin	End		PM	PM10	PM2.5	SO2	VOC	NOx	CO
No.1 Slag Plant (replace GS043)	07/2005	06/2007	86,258	-0.34	-0.34	-0.28	-0.03	-0.53	-18.91	-5.02
<b>North End Processing Area (GS038, GS040) (Updated)</b>	01/2007	12/2008	67,817	-0.27	-0.27	-0.22	-0.02	-0.42	-14.87	-3.95

\*Based on the monthly fuel consumption information in gallons for GS043, GS040 and GS038

\*\*Emission Rate (tons/year) = Fuel usage rate (gallons) / 1000 gallons x Emission Factor (lb/1000 gallon) / (2000 lb/ton)

**Emission Factors for Generators Greater Than 600 Hp**

Type of Generator	Emission Factor Units	PM	PM10	PM2.5	SO2	VOC	NOx	CO	Source
≥600 Hp	(lb/mmbtu)	0.0573	0.0573	0.0479	0.005	0.09	3.2	0.85	AP-42, Tables 3.4-1 and 2, EFs for
≥600 Hp	(lb/1000 gal)	7.85	7.85	6.56	0.692	12.33	438.50	116.48	Generators Greater than 600 Hp

All emission factors are revised to match EMITS rounded EFs online. Assume PM is equal to PM10.

19,300 BTU/lb, heating value for diesel fuel (per AP-42, 3.4)  
 7.1 lb/gallon density (per AP-42, 3.4)  
 0.50% sulfur content of diesel (No. 2 high sulfur fuel @ 5000 ppm)

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date: 24-May-12

Date Original Application (089-28917-00316) Received: Jan. 26, 2010

REFERENCE A-3 --- Emissions Decrease for Reducing Current Diesel F.O. Limit to GS-045 & GS-046 at Beemsterboar Slag Corporation (Plt ID 089-00356)								
Generator ID	Emission Rates (tons/yr)							Comments
	PM	PM10	PM2.5	SO2	VOC	NOx	CO	
Generator GS-045	2.83	2.83	2.83	2.64	3.24	39.90	8.60	Emission rates provided in Permit No. 089-24137-00356, TSD Pages 48 to 50. Diesel fuel limit of 131,528 gallons per 12 consecutive month period for Generator GS-045. Generator GS-046 has the potential diesel fuel usage of 120,044 gallons/yr.
Generator GS-046	2.58	2.58	2.58	2.41	2.96	36.42	7.85	
GS-045 and GS-046 Totals	5.41	5.41	5.41	5.05	6.20	76.32	16.45	
GS-045 and GS-046 Diesel Fuel Reduction*	1.25	1.25	1.25	1.17	1.43	17.63	3.80	Emissions based on reducing diesel fuel limit to 58,113 gallons per 12 consecutive month period.
Totals	-4.16	-4.16	-4.16	-3.88	-4.77	-58.69	-12.65	

\* Emission rate based on ratio of new fuel limit of 58,113 and total diesel fuel usage rate for GS-045 and GS-046 of 251,572 gallons (131,528 gal + 120,044 gal).

Appendix A: Emissions Calculations  
 Natural Gas Combustion Only  
 MM BTU/HR <100

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date: 24-May-12

Date Original Application (089-28917-00316) Received: Jan. 26, 2010

REFERENCE A-4 --- Emissions Increase from New Two (2) Ladle Burners at ArcelorMittal Indiana Harbor, LLC		
Heat Input Capacity MMBtu/hr	Unrestricted Potential Throughput MMCF/yr	Limited Throughput MMCF/yr
36.0 2 Ladle Burners each at 18 MMBtu./hr	309.2	77.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*/PM2.5	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Unlimited PTE in tons/yr	0.29	1.17	0.09	15.46	0.85	12.99
Limited PTE in tons/yr	0.07	0.29	0.02	3.85	0.21	3.23

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Methodology**

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1 and 1.4-2

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date: 24-May-12

Date Original Application (089-28917-00316) Received: Jan. 26, 2010

REFERENCE A-5 --- Emissions Decrease Based on Installation of No. 4 SP Mold Fume Exhaust Baghouse at ArcelorMittal USA, Inc.				
Project	Emission Rates (ton/yr)			Source / Comments
	PM	PM10	PM2.5	
No. 4 BOF Mold Fume Exhaust Baghouse	-46.8	-46.8	-46.8	Permit No. 089-23628-00316 does not require the baghouse to be operated.

The following table shows that particulate emissions would decrease following the No. 4 BOF Shop Mold Fume Exhaust Baghouse's installation. Lead emissions are expected to be negligible. The new baghouse would not affect emission rates of any other criteria pollutants.

\*\*\* Note: Corrected error in TSD for SSM No. 089-28917-00316

Emission Unit	Uncontrolled Emission Factor	Building Capture Efficiency	Baghouse Capture Efficiency	Control Efficiency	Baseline Actual Operating Hours	Potential Operating Hours	PTE (tons/yr)
Current No. 4 BOF Caster Mold Uncontrolled Emissions from Roof Monitor	12.6	lb PM, PM <sub>10</sub> , PM <sub>2.5</sub> / hr	0.0%		8148	-	51.3 ton PM, PM <sub>10</sub> , PM <sub>2.5</sub> / year (Uncontrolled)
*** No. 4 BOF Caster Mold Stack Portion of Uncontrolled Emissions Following Installation of a Baghouse	12.6	lb PM, PM <sub>10</sub> , PM <sub>2.5</sub> / hr	5% fugitive (not captured by the baghouse)		-	8760	ton PM, PM <sub>10</sub> , PM <sub>2.5</sub> / year 2.8 (Uncontrolled Portion)
No. 4 BOF Caster Mold Stack Controlled Emissions Following Installation of a Baghouse	12.6	lb PM, PM <sub>10</sub> , PM <sub>2.5</sub> / hr	-	95.0%	96.6%	-	8760 1.8 ton PM, PM <sub>10</sub> , PM <sub>2.5</sub> / year (Controlled)
Emissions Reductions							-46.8 ton PM, PM <sub>10</sub> , PM <sub>2.5</sub> / year

12.6 lbs/hr was based on the worst assumption that all mold powder injection rate is all emitted.

Note: Baseline actual operating hours are calculated by averaging 2004 and 2005 total operating hours together.

\*\*

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date: 24-May-12

Date Original Application (089-28917-00316) Received: Jan. 26, 2010

**REFERENCE A-6 --- Emissions Decrease at ArcelorMittal USA, Inc. Through the Upgrade of 4 SP MACT Scrubber**

**Pre-NESHAP Estimated Emission Rates**

Stack Tests Results

Date	Average Concentrations (lb/ton)			Comments
	PM	PM10	PM2.5	
08/24-08/25/2004	0.107	0.072	0.070	PM results based on stack tests. PM10/PM2.5
12/07/12/08/2004	0.128	0.086	0.083	Ratio based on AP-42, Table 12.5-2, 1/95
Average	0.118	0.079	0.076	PM10(67%), PM2.5(65%)

Pre-NESHAP MACT 24-Month Baseline Production Rate, August 2000 to July 2002 (tons/yr)	2,930,307
---	-----------

Description	Filterable Emission Rates (tons/yr)		
	PM	PM10	PM2.5
Pre-NESHAP Emission Rates	172.16	115.34	111.90

**Post-NESHAP Estimated Emission Rates**

Stack Tests Results

Date	Run No.	Flow Rate (dscfm)	NESHAP PM Emission Limit* (gr/dscf)	Filterable PM Emission Rate (lb/hr)	Annual Primary Uptime (%)	Post-NESHAP PM Emission Rates (tons/yr)
08/23/2007	1	400,092	0.02	68.59	50%	150.21
	2	401,081		68.76		150.58
	3	397,942		68.22		149.40
08/27/2007	1	315,555		54.10		118.47
	2	299,501		51.34		112.44
	3	316,564		54.27		118.85
	Average	355,123		60.88		133.32

\*Pursuant to 40 CFR Part 63 Subpart FFFFF and D.6.2 of the Part 70 Permit 089-22044-00316, the 4 SP Scrubber exhaust is already subject to this limit. PM10 and PM2.5 pounds per hour limits were added in this permitting action. (SSM No. 089-28917-00316).

Description	Filterable Emission Rates (tons/yr)			Comments
	PM	PM10	PM2.5	
Post-NESHAP Emission Rates	133.32	89.33	86.66	PM10/PM2.5 Ratio based on AP-42, Table 12.5-2, 1/95 PM10(67%), PM2.5(65%)

**Contemporaneous Emissions Decrease**

Description	Filterable Emission Rates		
	PM (tons/yr)	PM10 (tons/yr)	PM2.5 (tons/yr)
Pre-NESHAP Emission Rates	172.16	115.34	111.90
Post-NESHAP Emission Rates	133.32	89.33	86.66
Emissions Decrease	-38.83	-26.02	-25.24
Limits (lbs/hour)		40.79	39.57

Existing Scrubber was physically modified to make it more efficient to comply with the NESHAP requirements.

The BOF operates by batch process, the test was based on 3 hour continuous runs and it did not account for the operation when there is no "Heat or Charged" to the furnace. Therefore, 50% uptime was assumed to account for this operation.

Company Name: ArcelorMittal USA, Inc.  
 Address City IN Zip: 3210 Watling St., East Chicago, IN 46312  
 AA No.: 089-31704  
 Plant No.: 089-00316  
 Reviewer: Madhurima Moulik  
 Date: 25-May-12

Date Original Application (089-28917-00316) Received: Jan. 26, 2010

**REFERENCE A-7 --- Emissions Decrease Through the Elimination of the Residual Oil No. 6 Usage as Fuel for Boiler No. 6 through Boiler No. 8 Located at ArcelorMittal Indiana Harbor, LLC**

Baseline Oil Usage for the Boilers 1699 Kgal/year 254850 MMBtu/year (see monthly usage below)  
 Based on 24-Month Annual Average for Oct 2000 to Sep 2002 period.

Process Emissions	PM	PM10	PM2.5	SOx	NOx	Unit	Source
Fuel Oil Emission Factors	16.67	14.54	9.99	204.10	47	lb/kgal	AP-42 Chapter 1.3, 9/98, S=1.3
	0.11	0.10	0.07	1.36	0.31	lb/MMBtu	150 MMBtu/Kgal
Natural Gas Emission Factors	1.90	7.60	7.60	0.60	280	lb/MMscf	AP-42 Chapter 1.4, 9/98, Boilers are Pre-NSPS
	0.0019	0.0075	0.0075	0.0006	0.2745	lb/MMBtu	1020 MMBtu/MMscf
Reduction in Emission Factors	0.11	0.09	0.06	1.36	0.04	lb/MMBtu	Change in EF as a result of fuel oil elimination
<b>EMISSIONS REDUCTIONS</b>	<b>13.92</b>	<b>11.41</b>	<b>7.54</b>	<b>173.31</b>	<b>4.95</b>	<b>tons/year</b>	

Note: The existing Boilers Nos. 5, 6, 7 and 8 use blast furnace gas (BFG) as primary fuel. Natural gas and residual oil no. 6 are used to supplement the BFG fuel especially during the Blast Furnace startups to achieve the maximum heat input. The boilers produce steam that is used for the turbo blowers to provide wind to the blast furnaces and other plant uses. The heat input for the residual oil will be supplied by the natural gas, which is a much cleaner fuel than residual oil. Therefore, this results in emissions reduction.

Actual Residual Fuel Oil Usage (Gallons)\* - Boilers No. 6 through No. 8

	No. 6 Boiler	No. 7 Boiler	No. 8 Boiler	Total (gal)
Oct-00				343,707
Nov-00				
Dec-00				570,312
Jan-01				
Feb-01				
Mar-01	94,317	92,029	402,044	588,390
Apr-01	86,199	60,250	362,265	508,714
May-01	64,648	85,064	440,035	589,747
Jun-01	75,421	53,130	386,216	514,766
Jul-01	25,141	14,990	59,901	100,032
Aug-01				83,026
Sep-01				98,870
Oct-01				
Nov-01				
Dec-01				
Jan-02				
Feb-02				
Mar-02				
Apr-02				
May-02				
Jun-02				
Jul-02				
Aug-02				
Sep-02				

Methodology:

Emissions Reduction, ton/yr =  $\frac{\text{EF Reduction, lb/MMBtu} \times \text{oil usage, MMBtu/yr}}{2000 \text{ lb/ton}}$

1,699 kgals/yr (Average)



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

**TO:** Brian Wolters  
ArcelorMittal USA, Inc.  
3001 Dickey Road, Mail Station 001  
East Chicago, IN 46312

**DATE:** July 18, 2012

**FROM:** Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

**SUBJECT:** Final Decision  
Administrative Amendment  
089-31704-00316

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
Wendell L Carter – VP ArcelorMittal USA & GM IN Harbor ArcelorMittal USA Inc.  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

IDEM Staff	GHOTOPP 7/18/2012 ArcelorMittal USA Inc. 089-31704-00316 Final		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Brian Wolters ArcelorMittal USA Inc. 3001 Dickey Rd, Mail Station 001 East Chicago IN 46312 (Source CAATS) via confirmed delivery										
2		Wendell L Carter VP - ArcelorMittal USA & GM - IN Harbor ArcelorMittal USA Inc. 3210 Watling St East Chicago IN 46312 (RO CAATS)										
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 (Local Official)										
4		Indiana State Representative 2nd District 4114 Butternut St East Chicago IN 46312 (Legislator)										
5		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 (Affected Party)										
6		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 (Health Department)										
7		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 (Affected Party)										
8		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 (Affected Party)										
9		Ms. Carolyn Marsh Lake Michigan Calumet Advisory Council 1804 Oliver St Whiting IN 46394-1725 (Affected Party)										
10		Mark Coleman 107 Diana Road Portage IN 46368 (Affected Party)										
11		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)										
12		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 (Affected Party)										
13		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 (Local Official)										
14		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)										
15		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
<b>15</b>			

# Mail Code 61-53

IDEM Staff	GHOTOPP 7/18/2012 ArcelorMittal USA Inc. 089-31704-00316 Final		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 (Affected Party)										
2		Fritz Enterprises 1650 West Jefferson Trenton MI 48183 (Affected Party)										
3		Beemsterboer Slag 3411 Shieldfiled Ave. Hammond IN 46327 (Affected Party)										
4		East Chicago Recovery 5222 Indianapolis Blvd. E. Chicago IN 46312 (Affected Party)										
5		Heckett Multiserv P.O. Box 3550 E. Chicago IN 46312 (Affected Party)										
6		Oil Technology 1203 Sheffield Ave. Dyer IN 46311 (Affected Party)										
7		Mid Continent Coal and Coke 915 West 175th St. Homewood IL 60430 (Affected Party)										
8		Indiana Harbor Coke 3210 Watling St. E. Chicago IN 46312 (Affected Party)										
9		Coke Energy 2000 York Road Suite 129 Oak Brook IL 60523 (Affected Party)										
10		LaFarge North America 3210 Watling St. E. Chicago IN 46312 (Affected Party)										
11		Heritage Slag Products 5400 West 86th St. Indianapolis IN 46268 (Affected Party)										
12		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)										
13		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 (Affected Party)										
14		Gary City Council 401 Broadway # 209 Gary IN 46402 (Local Official)										
15		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 (Affected Party)										

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
<b>15</b>			

# Mail Code 61-53

IDEM Staff	GHOTOPP 7/18/2012 ArcelorMittal USA Inc. 089-31704-00316 Final		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Gitte Laasby Post Tribune 1433 E. 83rd Ave Merrillville IN 46410 (Affected Party)										
2		Susan Severtson Attorney City of Gary Law Dept. 401 Broadway 4th Floor Gary IN 46402 (Local Official)										
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												

Total number of pieces Listed by Sender  <b>2</b>	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
---	--	--	--