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Thomas W. Easterly  
Commissioner

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**NOTICE OF 60-DAY PERIOD  
FOR PUBLIC COMMENT**

**Preliminary Findings Regarding a Part 70 Operating Permit**

**for US Steel – Gary Works and associated contractors  
in Lake County**

**Part 70 No.: T089-7663-00121**

The Indiana Department of Environmental Management (IDEM), has received an application from US Steel-Gary Works located at One North Broadway, Gary, Indiana 46402 for a Part 70 Operating Permit, also called a Title V Permit. IDEM's Office of Air Quality (OAQ) issues this type of permit to regulate the operation of sources that emit relatively large amounts of air pollution. This type of permit combines all of the requirements for controlling air pollution into one permit for the source, and requires the source to test equipment and keep records to ensure that the facility is following the requirements for controlling air pollution. IDEM has reviewed this application, and has developed preliminary findings, consisting of a draft permit and several supporting documents, that would allow US Steel – Gary Works and associated contractors to operate an integrated steel mill.

IDEM,has determined that US Steel-Gary Works and the following contractors are considered a single source. Separate Part 70 permits will be issued to US Steel-Gary Works and the following contractors solely for administrative purposes:

Brandenburg Industrial Service Company, Part 70 No.: T089-8013-00176,  
Central Teaming Company, Part 70 No.: T089-7684-00172,  
Gary Coal Processing LP, Part 70 No.: T089-7171-00169,  
Heckett Multiserv, Part 70 No.: T089-7649-00170,  
Heritage Slag Products, LLC, Part 70 No.: T089-12280-05210,  
International Mill Service, Inc., Part 70 No.: T089-5630-00132,  
Koppers, Inc., Part 70 No.: T089-13872-00180,  
Levy-Indiana Slag Company, Part 70 No.: T089-7719-00133,  
Mid-Continent Coal & Coke Company, Part 70 No.: T089-8064-00173,  
Tube City, Inc., Part 70 No.: T089-7648-00174.

A copy of the permit application and IDEM's preliminary findings are available at:

Gary Public Library Information Center,  
220 W 5<sup>th</sup> Avenue  
Gary, Indiana, 46402

Northwest Regional Office  
8315 Virginia St., Ste.1  
Merrillville, IN 46410

Northwestern Indiana Regional Planning Commission (NIRPC),  
6100 Southport Road,  
Portage, Indiana, 46368

A copy of the preliminary findings is available on the Internet at: [www.IN.gov/idem/air/permits/Air-Permits-Online](http://www.IN.gov/idem/air/permits/Air-Permits-Online)

### **How can you participate in this process?**

The day after this announcement is published in a newspaper marks the beginning of a 60-day public comment period. The public comment period ends on April 2, 2005. During that 60-day period, you may comment on this draft permit. If the 60<sup>th</sup> day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM may hold a public hearing. If a public hearing is held, IDEM will make a separate announcement of the date, time, and location of that hearing. At a hearing, you would have an opportunity to submit written comments, make verbal comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing, should be sent in writing to IDEM. If you do not want to comment at this time, but would like to be added to IDEM's mailing list to receive notice of future action related to this permit application, please contact IDEM. Please refer to permit number mentioned above in all correspondence.

#### **To Contact IDEM:**

Gail McGarrity  
IDEM, Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(800) 451-6027, ask for extension (3-0242)  
Or dial directly: (317) 233-0242  
E-mail: [gmcgarri@dem.state.in.us](mailto:gmcgarri@dem.state.in.us)

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor or noise. For such issues, please contact your local officials.

### **What will happen after IDEM makes a decision?**

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, and the IDEM public file room on the 12<sup>th</sup> floor of the Indiana Government Center North, 100 N. Senate, Indianapolis and Northwest Regional Office, 8315 Virginia St. Ste. 1, Merrillville, IN.

If you have any questions please contact Gail McGarrity or my staff at the above address.

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

For additional information about air permits, and how you can participate, please see IDEM **Citizens' Guide to Public Participation** and **Permit Guide** on the Internet at: [www.IN.gov/idem/guides](http://www.IN.gov/idem/guides).

gmm



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Draft

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

**US Steel - Gary Works  
One North Broadway  
Gary, Indiana 46402**

(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.: T089-7663-00121	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:  Expiration Date:

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- D.6.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

### **Compliance Determination Requirements**

- D.6.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for Sinter Plants [40 CFR 63.7810(a)][40 CFR 63.7825][40 CFR 63.7826][40 CFR 63.7832]
- D.6.10 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing-Testing Requirements [40 CFR 63.7820 through 63.7824]
- D.6.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]



- D.6.12 Sulfur Dioxide (SO<sub>2</sub>) Sampling and Fuel Analysis [326 IAC 7-4-1.1(d)]
- D.6.13 Particulate Matter Control

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

- D.6.14 Visible Emissions Notations
- D.6.15 Parametric Monitoring
- D.6.16 Baghouse Inspections
- D.6.17 Broken or Failed Bag Detection
- D.6.18 Scrubber Inspections
- D.6.19 Scrubber Failure Detection
- D.6.20 Continuous Emissions Monitoring (VOC) [326 IAC 8-13-8]
- D.6.21 VOC Monitoring Downtime

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

- D.6.22 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Record keeping Requirements for Sinter Plants [40 CFR 63.7810(b)][40 CFR 63.7]
- D.6.23 General Record Keeping Requirements
- D.6.24 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Reporting Requirements for Sinter Plants [40 CFR 63.7835][40 CFR 63.7840]
- D.6.25 General Reporting Requirements
- D.6.26 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12] [326 IAC 2-7-5]

**D.7 FACILITY OPERATION CONDITIONS - Blast Furnaces (Nos. 4, 6, 8 and 13)**

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

- D.7.1 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1][40 CFR 63, Subpart A][Table 4 to 40 CFR 63, Subpart FFFFF]
- D.7.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel manufacturing - Emission Limitations for Blast Furnaces [40 CFR 63, Subpart FFFFF]
- D.7.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.7.4 Lake County Particulate Emissions Limitations [326 IAC 6-1-2(a)]
- D.7.5 Lake County Opacity Limitations [326 IAC 6-1-10.1(p)(3)(F)(i) and (ii)]
- D.7.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(J)]
- D.7.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.7.8 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for Blast Furnaces [40 CFR 63.7810(a)]p40 CFR 63.7825][40 CFR 63.7826][40 CFR 63.7832]
- D.7.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing-Testing Requirements [40 CFR 63.7820 through 63.7824]
- D.7.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.7.11 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1(d)]
- D.7.12 Particulate Matter Control

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

- D.7.13 Visible Emissions Notations
- D.7.14 Parametric Monitoring
- D.7.15 Baghouse Inspections
- D.7.16 Broken or Failed Bag Detection

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

- D.7.17 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Record keeping Requirements for Blast Furnaces [40 CFR 63.7810(b)][40 CFR 63.7]
- D.7.18 General Record Keeping Requirements
- D.7.19 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Reporting Requirements for Blast Furnaces [40 CFR 63.7835][40 CFR 63.7840]
- D.7.20 General Reporting Requirements
- D.7.21 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12]  
[326 IAC 2-7-5] Record Keeping Requirements

## **D.8 FACILITY OPERATION CONDITIONS - No. 1 BOP Shop**

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

- D.8.1 General Provisions Relating to HAPS [326 IAC 20-1][40 CFR 63, Subpart A][Table 4 to 40 CFR 63, Subpart FFFFF]
- D.8.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel manufacturing - Emission Limitations for (BOPF) Shops [40 CFR 63, Subpart FFFFF]
- D.8.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.8.4 Particulate Emissions Limitations [326 IAC 6-1-2(a)]
- D.8.5 Lake County Opacity Limitations [326 IAC 6-1-10.1(e)]
- D.8.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]
- D.8.7 Hot Metal Processing Facility Limitations
- D.8.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

### **Compliance Determination Requirements**

- D.8.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for (BOPF) Shops [40 CFR 63.7810(a)][40 CFR 63.7825][40 CFR 63.7826][40 CFR 63.7832]
- D.8.10 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing-Testing Requirements [40 CFR 63.7820 through 63.7824]
- D.8.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.8.12 Testing Requirements
- D.8.13 Particulate Matter Control

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

- D.8.14 Visible Emissions Notations
- D.8.15 Parametric Monitoring
- D.8.16 Bag Leak Detection
- D.8.17 Baghouse Inspections
- D.8.18 Broken or Failed Bag Detection
- D.8.19 Scrubber Inspections
- D.8.20 Scrubber Failure Detection

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

- D.8.21 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Record keeping Requirements for (BOPF) Shops [40 CFR 63.7810(b)][40 CFR 63.7]
- D.8.22 General Record Keeping Requirements
- D.8.23 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Reporting Requirements for (BOPF) Shops [40 CFR 63.7835][40 CFR 63.7840]
- D.8.24 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12]  
[326 IAC 2-7-5]

## **D.9 FACILITY OPERATION CONDITIONS - No. 2 Q-BOP Shop**

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

- D.9.1 General Provisions Relating to HAPS [326 IAC 20-1][40 CFR 63, Subpart A][Table 4 to 40 CFR 63, Subpart FFFFF]
- D.9.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel manufacturing - Emission Limitations for (BOPF) Shops [40 CFR 63, Subpart FFFFF]
- D.9.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.9.4 Particulate Emissions Limitations [326 IAC 6-1-2(a)]
- D.9.5 Lake County Opacity Limitations [326 IAC 6-1-10.1(e)]
- D.9.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]
- D.9.7 Hot Metal Processing Facility Limitations
- D.9.8 Carbon Monoxide (CO) Limitations [326 IAC 9-1-2]
- D.9.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

### **Compliance Determination Requirements**

- D.9.10 NESHAP from Integrated Iron and Steel Manufacturing - Compliance Requirements for (BOPF) Shops [40 CFR 63.7810(a)]p40 CFR 63.7825][40 CFR 63.7826][40 CFR 63.7832]
- D.9.11 NESHAP from Integrated Iron and Steel Manufacturing-Testing Requirements [40 CFR 63.7820 through 63.7824]
- D.9.12 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.9.13 Testing Requirements
- D.9.14 Particulate Matter Control
- D.9.15 Carbon Monoxide Control

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

- D.9.16 Visible Emissions Notations
- D.9.17 Parametric Monitoring
- D.9.18 Baghouse Inspections
- D.9.19 Broken or Failed Bag Detection
- D.9.20 Scrubber Inspections
- D.9.21 Scrubber Failure Detection

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

- D.9.22 National Emission Standard for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Record keeping Requirements for (BOPF) Shops [40 CFR 63.7810(b)][40 CFR 63.7]
- D.9.23 General Record Keeping Requirements
- D.9.24 National Emission Standard for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Reporting Requirements for (BOPF) Shops [40 CFR 63.7835][40 CFR 63.7840]
- D.9.25 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12] [326 IAC 2-7-5]

## **D.10 FACILITY OPERATION CONDITIONS - Hot Rolling Mill**

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

- D.10.1 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.10.2 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(G)]
- D.10.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

### **Compliance Determination Requirements**

- D.10.4 Testing Requirements
- D.10.5 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1(d)]

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

- D.10.6 Record Keeping Requirements
- D.10.7 Reporting Requirements

#### **D.11 FACILITY OPERATION CONDITIONS - Continuous Pickling Line**

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

- D.11.1 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1-1][40 CFR 63, Subpart A]
- D.11.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants [40 CFR 63, Subpart CCC][40 CFR Part 63.1157]
- D.11.3 National Emission Standards for Hazardous Air Pollutants (NESHAP) Maintenance Requirements [40 CFR 63.1160]
- D.11.4 National Emission Standards for Hazardous Air Pollutants (NESHAP) Operational and Equipment Standards [40 CFR Part 63.1159, Subpart CCC]
- D.11.5 Particulate Emission Limitations [326 IAC 6-1-2(a)]

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

- D.11.6 Testing Requirements [40 CFR 63.116, Subpart CCC]

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

- D.11.7 National Emission Standards for Hazardous Air Pollutants (NESHAP) Monitoring Requirements [40 CFR 63.1162, Subpart CCC]
- D.11.8 Monitoring Requirements [40 CFR Part 63.1162]

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

- D.11.9 Record Keeping Requirements [40 CFR Part 63.1165]
- D.11.10 Reporting Requirements [40 CFR Part 63.1164]

#### **D.12 FACILITY OPERATION CONDITIONS - Sheet Products Division**

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

- D.12.1 General Provisions Relating to New Source Performance Standards (NSPS) [326 IAC 12-1][40 CFR 60, Subpart A]
- D.12.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.12.3 Particulate Emissions Limitations [326 IAC 6-1-2(a)]
- D.12.4 Nitrogen Dioxide (NO<sub>x</sub>) Emission Offsets [326 IAC 2-3]
- D.12.5 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]
- D.12.6 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants [326 IAC 20-1][40 CFR 63, Subpart A]
- D.12.7 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]
- D.12.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

- D.12.9 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]
- D.12.10 Record Keeping Requirements
- D.12.11 Reporting Requirements

#### **D.13 FACILITY OPERATION CONDITIONS - Tin Mill Operations**

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

- D.13.1 Particulate Emissions Limitations [326 IAC 6-1-2(a)]
- D.13.2 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]

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

D.13.3 Record Keeping Requirements

**D.14 FACILITY OPERATION CONDITIONS - No. 4 Boiler House**

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

- D.14.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants [326 IAC 20-1][40 CFR 63, Subpart A]
- D.14.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]
- D.14.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.14.4 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(B)]
- D.14.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.14.6 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.14.7 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1(d)]

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

- D.14.8 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]
- D.14.9 Record Keeping Requirements
- D.14.10 Reporting Requirements
- D.14.11 Natural Gas Fired Boiler Certification

**D.15 FACILITY OPERATION CONDITIONS - Turboblower Boiler House (TBBH)**

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

- D.15.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants [326 IAC 20-1][40 CFR Part 63, Subpart A]
- D.15.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 63, Subpart DDDDD]
- D.15.3 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR 60, Subpart A]
- D.15.4 NSPS Particulate Matter Limitations [326 IAC 12][40 CFR 60, Subpart D]
- D.15.5 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]
- D.15.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(A)]
- D.15.7 PSD Nitrogen Oxides (NO<sub>x</sub>) Offset Limitations [326 IAC 2-2][326 IAC 2-3]
- D.15.8 Nitrogen Oxides (NO<sub>x</sub>) Limitations [326 IAC 12][40 CFR 60, Subpart D]
- D.15.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

**Compliance Determination Requirements**

- D.15.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]
- D.15.11 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1(d)]
- D.15.12 Nitrogen Oxides (NO<sub>x</sub>) Emissions Monitoring

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

- D.15.13 Continuous Nitrogen Oxides (NO<sub>x</sub>) Emissions Monitoring Systems [40 CFR Part 60, Appendix F]

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

- D.15.14 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]
- D.15.16 Record Keeping Requirements
- D.15.17 Reporting Requirements
- D.15.18 Natural Gas Fired Boiler Certification

## **D.16 FACILITY OPERATION CONDITIONS - Fugitive Dust Sources**

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

D.16.1 Particulate Matter (PM)Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-11.1]

### **Compliance Determination Requirements**

D.16.2 Particulate Matter

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

D.16.3 Record Keeping Requirements

D.16.4 Reporting Requirements

## **D.17 FACILITY OPERATION CONDITIONS Insignificant Activities**

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

D.17.1 Particulate Emissions Limitations [326 IAC 6-1-2(a)]

D.17.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2 (Cold Cleaner Degreaser Operation)]

D.17.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)]

D.17.4 Volatile Organic Compounds [326 IAC 8-3-8] (Material Requirements for Cold Cleaning Degreasers)

D.17.5 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

## **E NITROGEN OXIDES BUDGET TRADING PROGRAM - NO<sub>x</sub> Budget Permit**

E.1 Automatic Incorporation of Definitions [326 IAC 10-4-7(e)]

E.2 Standard Permit Requirements [326 IAC 10-4-4(a)]

E.3 Monitoring Requirements [326 IAC 10-4-4(b)]

E.4 Nitrogen Oxides Requirements [326 IAC 10-4-4(c)]

E.5 Excess Emissions Requirements [326 IAC 10-4-4(d)]

E.6 Record Keeping Requirements [326 IAC 10-4-4(e)] [326 IAC 2-7-5(3)]

E.7 Reporting Requirements [326 IAC 10-4-4(e)]

E.8 Liability [326 IAC 10-4-4(f)]

E.9 Effect on Other Authorities [326 IAC 10-4-4(g)]

### **Certification**

**Emergency Occurrence Report**

**Quarterly Deviation and Compliance Monitoring Report**

**Semi- Annual Natural Gas Boiler Certification**

**Quarterly Reports**

## 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.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)]

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The Permittee owns and operates an integrated steel mill.

Responsible Officials:	Coke - Plant Manager, Gary Coke Operations Steel - General Manager, Gary Sheet
Source Address:	1 North Broadway, Gary, Indiana 46402
Mailing Address:	1 North Broadway, Gary, Indiana 46402
General Source Phone Number:	219-888-3387
SIC Code:	3312
County Location:	Lake
Source Location Status:	Nonattainment for SO <sub>2</sub> Nonattainment for 1-hour ozone Nonattainment for 8-hour ozone Attainment or unclassifiable for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD, nonattainment for NSR and Emission Offset 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)]

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This integrated steel mill consists of a main mill and ten (10) on-site contractors :

- (a) U. S. Steel - Gary Works, plant Id 089-00121, the primary operation, located at One North Broadway, Gary, Indiana 46402;
- (b) Brandenburg Industrial Service Company, plant Id 089-00176, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (c) Central Teaming Company, plant Id 089-00172, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (d) Gary Coal Processing, LP plant Id 089-00169, a supporting operation, located at One North Broadway, Gary, Indiana 46402; and
- (e) Heckett Multiserv, plant Id 089-00170, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (f) Heritage Slag Products, LLC., plant Id 089-05210, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (g) International Mill Service, Inc. plant Id 089-00132, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (h) Koppers, Inc., plant Id 089- 00180, a supporting operation, located at One North Broadway, Gary, Indiana 46402;

- (i) Levy- Indiana Slag Company, plant Id 089-00133, a supporting operation, located at One North Buchanan Street, Gary, Indiana 46401;
- (j) Mid-Continent Coal and Coke Company, plant Id 089-00173, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (k) Tube City, Inc., plant Id 089-00174, a supporting operation, located at One North Broadway, Gary, Indiana 46401.

IDEM has determined that U.S. Steel – Gary Works and each of the on-site contractors are under the common control of U.S. Steel - Gary Works. These plants are considered one source due to contractual control. Therefore, the term “source” in the Part 70 documents refers to both U.S. Steel- Gary Works and the on-site contractors as one source.

Separate Part 70 permits will be issued to US Steel - Gary Works and each on site contractor, solely for administrative purposes.

Company Name	Part 70 Permit Number
U.S. Steel - Gary Works	089-7663-00121
Brandenburg Industrial Service Company	089-8013-00176
Central Teaming Company, Inc.	089-7684-00172
Gary Coal Processing, LP	089-7171-000169
Heckett Multiserv,	089-7649-00170
Heritage Slag Products, LLC,	089-12280-05210
International Mill Service, Inc.	089-5630-00132
Koppers, Inc.	089-13872-00180
Levy-Indiana Slag Company	089-7719-00133
Mid-Continent Coal and Coke Company	089-8064-0073
Tube City, Inc.	089-7648-00174

**Permitted Emission Units and Pollution Control Equipment**

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]  
 [326 IAC 2-7-5(15)]

The integrated steel mill, US Steel-Gary Works consists of the following:

**Coal Handling Operation**

- (a) One (1) coal car bottom thaw shed, identified as CHY00071, constructed in 1959, combusting coke oven gas, with a maximum heat input capacity of 25 MMBtu per hour, with an open flame heater, exhausting uncontrolled fugitive emissions.
- (b) One (1) coal car side thaw station, identified as CHT0001, constructed in 1959, combusting natural gas, with a maximum heat input capacity of 15 MMBtu per hour, with an open flame heater, exhausting uncontrolled fugitive emissions.
- (c) One (1) No. 2 Coke Battery Precarbonization facility, consisting of three (3) lines, Line A, Line B and Line C identified as CH2A0020, CH2B0021 and CH2C0022, constructed prior to October 24, 1974, each with a maximum capacity of 153.5 tons per hour. Particulate matter emissions from the three lines are controlled by electrostatic precipitators (ESP), ESP A, ESP B and ESP C, identified as CH3029, CH3030 and CH3031, exhausting through stacks CH6034, CH6035 and CH6037, respectively.
- (d) One (1) No. 3 Coke Battery Precarbonization facility consisting of three (3) lines Line A, Line B and Line C identified as CH3A0017, CH3B0018 and CH3C0019, constructed prior to October 24, 1974, each with a maximum capacity of 153.5 tons per hour. Particulate matter emissions from the three lines are controlled by electrostatic



precipitators (ESP), ESP A, ESP B and ESP C, CH3026, CH3027 and CH3028, exhausting through stacks CH6028, CH6029 and CH6031, respectively.

- (e) One (1) coal crushers: HiVol (3) hammer mills with a maximum capacity of 160 tons per hour, LoVol (3) hammer mills with a maximum capacity of 150 tons per hour, and MidVol (2) hammer mills with a maximum capacity of 100 tons per hour, that exhausts into the totally enclosed coal blending building.
- (f) One (1) crusher, modified in 1999, to be used as a second coal crusher, with a maximum capacity of 1,200 tons per hour when used as a coal crusher. Emissions exhaust to the totally enclosed coal blending building. This operation is a totally enclosed hammer mill.
- (g) Coal Handling Storage Facilities, identified as emission unit CHSQ0003.

### **Coke Batteries**

- (a) No. 2 Coke Battery
  - (1) One (1) six (6) meter tall vertical flue coke battery with 57 ovens, No. 2 Coke Battery, identified as CP2B0079, constructed in November 1973, with a maximum charging capacity of 217 tons per hour. Excessive coke oven gas back pressure is controlled by three (3) flares lit with internal flare igniters CP3060, CP3061 and CP3062, exhausting to Bypass/Bleeder Flare Stacks CP6105, CP6106 and CP 6107.
  - (2) The No. 2 Coke Battery underfiring system has a maximum combustion heat input capacity of 198 MMBtu per hour, exhausting to stack CP6040 equipped with a continuous opacity monitor (COM).
  - (3) The No. 2 Coke Battery has a maximum pushing capacity of 161 tons of coke per hour, with particulate emissions controlled by a Mobile Scrubber Car 2-9121, identified as CP3034, exhausting to Stack CP6041.
  - (4) Nos. 2 and 3 Quench Towers identified as CP1Q0080 and CP2Q0081, constructed in 1975, with a maximum combined capacity of 322 tons of coke per hour, each equipped with a quench water header and baffle system with sprays.  
These towers service Nos. 2 and 3 Coke Batteries.
  - (5) The No. 2 Coke Battery fugitive emissions are generated from charging operations, off take piping, door leaks, lid leaks and collector main leaks.
- (b) No. 3 Coke Battery
  - (1) One (1) six (6) meter tall vertical flue coke battery with 57 ovens, No.3 Coke Battery, identified as CP3B0086, constructed in November 1974, with a maximum charging capacity of 217 tons per hour., Excessive coke oven gas back pressure is controlled by three (3) flares lit with internal flare igniters CP3063, CP3064 and CP3065, exhausting to Bypass/Bleeder Flare stacks CP6108, CP6109 and CP 6110.
  - (2) The No. 3 Coke Battery underfiring system has a maximum combustion heat input capacity of 198 MMBtu per hour, exhausting to stack CP6045, equipped with a continuous opacity monitor (COM).

- (3) The No.3 Coke Battery has a maximum pushing capacity of 161 tons of coke per hour, with particulate emissions controlled by a Mobile Scrubber Car 3-9122, identified as CP3038, exhausting to stack CP6046.
  - (4) The No. 1 Quench Tower, identified as CP3Q0087, constructed in 1975, with a maximum capacity of 322 tons of coke per hour, equipped with a quench water header and baffle system with sprays. This tower services Nos. 2, 3, 5 and 7 Coke Batteries.
  - (5) The No. 3 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lid leaks and collector main leaks.
- (c) No. 5 Coke Battery
- (1) One (1) three (3) meter short vertical flue coke oven battery with 77 ovens, No. 5 Coke Battery, identified as CP5B0090, constructed in 1954, with a maximum charging capacity of 84 tons per hour. Excessive coke oven gas back pressure is controlled by two (2) flares lit with internal flare igniters CP3066 and CP3067, exhausting to Bypass/Bleeder Flare stacks CP6111 and CP 6112.
  - (2) The No. 5 Coke Battery underfiring system has a maximum combustion heat input capacity of 115 MMBtu per hour, exhausting to stack CP6049, equipped with a COM.
  - (3) The No. 5 and No.7 Coke Batteries have a combined maximum pushing capacity of 103 tons of coke per hour, with particulate emissions controlled by a common baghouse, identified as CP3041, exhausting to stack CP6050.
  - (4) Nos. 5 and 6 Quench Towers identified as CP5Q0091 and CP5Q0095, constructed in 1954, with a maximum combined capacity of 103 tons of coke per hour, equipped with a quench water header and baffle system with sprays. These towers service Nos. 5 and 7 Coke Batteries.
  - (5) The No. 5 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lid leaks and collector main leaks.
- (d) No. 7 Coke Battery
- (1) One (1) three (3) meter short vertical flue coke oven battery, with 77 ovens, No.7 Coke Battery, identified as CP7B0094, constructed in 1954, with a maximum charging capacity of 84 tons per hour. Excessive coke oven gas back pressure is controlled by two (2) flares lit with internal flare igniters CP3068 and CP3069, exhausting to Bypass/Bleeder Flare stacks CP6113 and CP6114.
  - (2) The No. 7 Coke Battery underfiring system has a maximum combustion heat input capacity of 115 MMBtu per hour, exhausting to stack CP6053 equipped with a COM.
  - (3) The No. 5 and No.7 Coke Batteries have a combined maximum pushing capacity of 103 tons of coke per hour, with particulate emissions controlled by a common baghouse, identified as CP3041, exhausting to stack CP6050.
  - (4) Nos. 5 and 6 Quench Towers identified as CP5Q0091 and CP5Q0095, constructed in 1954, with a maximum combined capacity of 103 tons of coke per hour, equipped with a quench water header and baffle system with sprays. These towers service Nos. 5 and 7 Coke Batteries.

- (5) The No. 7 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lids leaks and collector main leaks.

(e) Natural Gas Underfiring Injection System Jets

Three (3) natural gas injection jets, identified as CPNGI001, CPNGI002 and CPNGI003, constructed in 2001, with heat input capacities of 22 MMBtu per hour, 43 MMBtu per hour and 122 MMBtu per hour, respectively. Natural gas injection provided Btu stabilization control, coke oven gas quality control and emergency gas supply to the battery unfiring system.

### Coke By-Products Recovery Plant

(a) Recovery No.1 Suction Control System

- (1) Four (4) Predecanters D-101A, D-101B, D-101C and D-101D, identified as CBP10100, CBP20101, CBP30102 and CBP30103, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72- inch Suction Main.
- (2) Two (2) Still Decanters D-102B and D-102A, identified as CBD00104 and CBD00105, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72- inch Suction Main.
- (3) Two (2) Gary Decanters D-5 and D-4, identified as CBD20107 and CBD30108, constructed in 1991, with VOC emission vapors directed by a natural gas blanket system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (4) One (1) Bleed-Off Tank, identified as CBB10106, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (5) One (1) Liquor Storage Tank T-7, identified as CBL10109, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 into the 72-inch Suction Main.
- (6) Two (2) Tar Storage Tanks T-2 and T-3, identified as CBT00110 and CBT00111, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72- inch Suction Main.
- (7) One (1) Storage Tank T-6, identified as CBT20112, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (8) Two (2) PC Tar Storage Tanks T-363D and T-363A, identified as CBT30113 and CB40114, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 into the 72-inch Suction Main.
- (9) One (1) Dry Tar Storage Tank T-9, identified as CBT50115, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (10) One (1) Sump S-9 serving Dry Tar Storage Tank ST-9, identified as CBS10116, constructed in 1991, with VOC emission vapors, directed by a natural gas

blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.

(b) Recovery No. 2 Suction Control System

- (1) Three (3) Tar Tanks T-304C, T-304B and T-304A , identified as CBT60118, CBT70119, and CBT80121, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No.2 and into the 72-inch Suction Main.
- (2) One (1) Tar Feed Tank T-306C, identified as CBTF0164, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No.2 and into the 72-inch Suction Main.
- (3) One (1) Wash Oil Tank T-331AN, identified as CBO10123, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 into the 72-inch Suction Main.
- (4) Two (2) Light Oil Storage Tanks T-312 and T-311, identified as CBO20124 and CBO30125, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 and into the 72-inch Suction Main.
- (5) One (1) sump S-304/306, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 and into the 72-inch Suction Main.

(c) No. 3 Suction Control System

- (1) Four (4) Predecanters D-105A, D-105B, D-105C and D-105D, identified as CBP70137, CBP80138, CBP50139 and CBP60140, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (2) Two (2) Still Decanters D-106A and D-106B, identified as CBD60134 and CBD70136, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (3) Two (2) Gary Decanters D-6 and D-7, identified as CBD40132 and CBD50133, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (4) Two (2) Tar Decanters D-5/7N and D-5/7S, identified as CBD80141 and CBD90142, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (5) One (1) Bleed-Off Tank B-104, identified as CBB20135, constructed in 1991 with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (6) One (1) Liquor Surge Tank T-11, identified as CBL60131, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.

(d) No. 4 Suction Control System

- (1) Four (4) Circulating Liquor Decanters L-100B, L-100C, L-100D and L-100E, identified as CBC30127, CBC40128, CBC50129 and CBL80145, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
- (2) Two (2) Liquor Surge Tanks T-340A and T-340B, identified as CBC20126 and CBL70143, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
- (3) One (1) Primary Cooler Tank T-345A, identified as CBTF0130, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.

(e) No. 5 Suction Control System

- (1) One (1) Sump of Circulating Liquor Ls-100E, identified as CBS40144, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (2) Three (3) Tar Storage Tanks T-301, T-302A, T-302B, identified as CBTA0146, CBTB0147 and CBTC0148, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (3) Two (2) Storage Tanks T-7100, T-7110 and T-7120, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (4) Two (2) Oil Tar Separator Tanks, T-7000 and T-7010, constructed in 1999, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (5) Two (2) Oil Tar Separator Tanks, T-7020 and T-7030, constructed in 1999, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (6) One (1) Surge Tank T-7800, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.

(f) Distillation Sump Emission Control

One (1) Distillation Sump Emission Control System, identified as CBS80151, constructed in 1991, uses a nitrogen gas blanketing system to control fugitive VOC emission vapors.

- (g) Coke Oven Gas (COG) High Pressure Control System, constructed in 1991, contains instrumentation and control valves designed to limit the maximum pressure in the COG distribution system. Excess COG pressure is directed to and combusted in a bleeder flare with emissions exhausting to Stack CG6077.

(h) Equipment in Benzene Service

All valves, flanges and pressure relief devices

### **Coke Oven Gas (COG) Desulfurization Facility**

- (a) One (1) amine unit, constructed in 1997, removes the hydrogen sulfide and other organic sulfur compounds from the coke oven gas (COG) stream.
- (b) One (1) reflux unit, constructed in 1997, removes the ammonia and other acid gases from the COG stream.
- (c) One (1) hydrogen cyanide (HCN) destruction unit, constructed in 1997 converts HCN in the acid gas stream to ammonia to minimize corrosion to the Sulfur Recovery Unit.
- (d) One (1) sulfur recovery unit, constructed in 1997, converts the sulfur compounds in the acid gas stream to elemental sulfur. This sulfur is sold as a by-product.
- (e) One (1) incineration unit, constructed in 1997, changes the sulfur compounds not removed by the sulfur recovery unit into sulfur dioxide which is burned off in the tail gas incinerator.

### **Coke Plant Boiler House**

- (a) Two (2) Boilers, Nos. 1 and 2, identified as CSS10155 and CSS20156, constructed prior to 1970, with a maximum heat input capacity of 160 MMBtu per hour each, exhausting stack CS6061. These boilers are equipped to combust natural gas.
- (b) One (1) Boiler, No. 3, identified as CSS30157, constructed in 1943, with a maximum heat input capacity of 160 MMBtu per hour, exhausting to stack CS6062. This boiler is equipped to combust natural gas and coke oven gas.
- (c) Two (2) Boilers, Nos. 4 and 5, identified as CSS40158 and CSS50159, constructed prior to 1955, with a maximum heat input of 170 MMBtu per hour each, exhausting to stack CS6063. These boilers are equipped to combust natural gas and coke oven gas.
- (d) One (1) Boiler No. 6, identified as CSS60160, constructed in 1955, with a maximum heat input capacity of 170 MMBtu per hour, exhausting to stack CS6064. This boiler is equipped to combust natural gas and coke oven gas.
- (e) One (1) Boiler, No. 7, identified as CS70161, constructed in 1976, with a maximum heat input capacity of 170 MMBtu per hour, exhausting to stack CS6065. This boiler is equipped to combust natural gas and coke oven gas.
- (f) One (1) Boiler, No. 8, identified as CSS80162, constructed in 1981, with a maximum heat input capacity of 250 MMBtu per hour, exhausting to stack CS6066. This boiler is equipped to combust natural gas and coke oven gas.
- (g) One (1) natural gas fired boiler at the coke plant boiler house, identified as the temporary rental boiler CSS80163, constructed in 2004. with a maximum heat input capacity of 235 MMBtu/hr and equipped with a low NOx burner, exhausting to the existing stack CS6066.
- (h) Two (2) boilers at the coke plant boiler house, identified as Boilers No. 9 CSS80164 and No. 10 CSS 80165, constructed in 2004, each with a maximum heat input capacity of 235 MMBtu/hr, exhausting to stacks CS6067 and CS6068, respectively. These boilers are equipped to burn natural gas and coke oven gas.
- (i) One (1) lime storage silo with a maximum capacity of 20 tons per hour and emissions controlled by a baghouse LRS-1, constructed in 2001, exhausting inside the building.

### Number 3 Sinter Plant

- (a) Three (3) Sinter Strands Windbox units, constructed in 1979, identified as ISS10379, ISS20380 and ISS30381, each with a 50 MMBtu per hour low NOx/flue gas recirculating burner system identified as ISB001, ISB002 and ISB003 and a maximum capacity of 225 tons of sinter per hour each, controlled by two (2) Windbox Gas Cleaning Systems IS3203 and IS3204, replaced in 1996, each comprised of a Quench Reactor, Dry Venturi Scrubber, a baghouse operated in series, and VOC CEMS, exhausting to Windbox stacks IS6198 and IS6199.
- (b) One (1) Cold Screen Station, identified as ISR00389, constructed in 1979, with a maximum capacity of 450 tons per hour, using a Baghouse IS3209 as a control device and exhausting to stack IS6207.
- (c) One (1) S1/S2 Conveyer System, identified as ISY00388, constructed in 1979, with a maximum capacity of 450 tons per hour, that transfers sinter from the sinter coolers to the cold screening station, using a Baghouse IS3208 as a control device and exhausting to stack IS6206.
- (d) Three (3) Sinter Coolers, identified as ISC10385, ISC20386, and ISC30387, constructed in 1979, with a maximum capacity of 225 ton per hour each, with emissions exhausting to stacks IS6203, IS6204, and IS6205 respectively.
- (e) Three (3) Sinter Strand Discharge End Areas, identified as ISS10379, ISS20380 and ISS0381, constructed in 1979, using three (3) baghouses as control devices, designated as IS3205, IS3206, and IS3207, exhausting to stacks IS6200, IS6201, and IS6202 respectively.
- (f) Blended Material Storage Bin Building, identified as ISB00377, constructed in 1979, with a maximum capacity of 1,000 tons per hour, using a Baghouse IS3196 as a control device and exhausting to stack IS6197.
- (g) Storage and Blending Piles, identified as ISBP0376, exhausting fugitive emissions.

### Blast Furnaces

- (a) Raw materials shipped to the ore yard identified as IAOYO366, are transferred to the Highline, identified as IAHL0307, from which raw material shipments and coke are sent through the Stockhouse.
- (b) The No. 13 Blast Furnace Stockhouse (sinter screening station), constructed in 1979, identified as IDSH0367, controlled by dust suppression, services Blast Furnaces No. 4, 6, 8 and 13.
- (c) No. 4 Blast Furnace, constructed in 1917, with a maximum capacity of 200 tons per hour, identified as IABF0308, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil (from on-site contractor when it meets specifications) at a rate of 70 gallons per minute and/or coal tar (when the on-site contractor tar centrifuge is not operating) at a rate of 70 gallons per minute into the No. 4 Blast Furnace.
  - (2) Three (3) No. 4 Blast Furnace Stoves identified as IAST0360, replaced in 1947, with a maximum heat input capacity of 200 MMBtu per hour each, combusting blast furnace gas (BFG) and natural gas, exhausting to the combustion stack IA6160.

- (3) No. 4 Blast Furnace Casthouse, identified as IABF0308, constructed in 1917, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IA3177, exhausting to casthouse roof monitor IA6010.
  - (4) One (1) Slag Pit, identified as IASP0311, exhausting fugitive emissions.
- (d) No. 6 Blast Furnace, constructed in 1910, with a maximum capacity of 175 tons per hour, identified as IBBFO341, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyrerres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil at a rate of 70 gallons per minute and/or coal tar at a rate 70 gallons per minute into the No. 6 Blast Furnace.
  - (2) Three (3) No. 6 Blast Furnace Stoves identified as IBST0361, replaced in 1997, with a maximum heat input capacity of 200 MMBtu per hour each, combusting Blast Furnace Gas (BFG) and natural gas exhausting to the combustion stack IB6168.
  - (3) No. 6 Blast Furnace Casthouse, identified as IBBF0341, constructed in 1910, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IB3178, exhausting to casthouse roof monitor IB6011.
  - (4) One (1) Slag Pit, identified as IBSP0335, exhausting fugitive emissions.
- (e) No. 8 Blast Furnace, constructed in 1909, with a maximum capacity of 160 tons per hour, identified as ICBFO354, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyrerres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil at a rate of 70 gallons per minute and/or coal tar at a rate of 70 gallons per minute into the No. 8 Blast Furnace.
  - (2) Three (3) No. 8 Blast Furnace Stoves, identified as ICST0362, replaced in 1999, with a maximum heat input capacity of 200 MMBtu per hour each, combusting Blast Furnace Gas and natural gas, exhausting to the combustion stack IC6175.
  - (3) No. 8 Blast Furnace Casthouse, identified as ICBF0354, constructed in 1909, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IC3179, exhausting to cast house roof monitor IC6012.
  - (4) One (1) Slag Pit, identified as ICSP0363, exhausting fugitive emissions.
- (f) No. 13 Blast Furnace, constructed in 1974, with a maximum capacity of 450 tons per hour, identified as IDBF0369, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyrerres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 80 tons per hour, oil at a rate of 150 gallons per minute and/or coal tar at a rate of 150 gallons per minute into the No.13 Blast Furnace.



- (2) Four (4) No.13 Blast Furnace Stoves identified as IDST0359, constructed in 1974, with a maximum heat input capacity of 330 MMBtu per hour each, combusting blast furnace gas and natural gas, exhausting to the combustion stack ID6184
- (3) No. 13 Blast Furnace Casthouse, identified as IDBF0369, constructed in 1974 with emissions controlled by a baghouse, identified as ID3185, exhausting to stack ID6187 and fugitive emissions exhausting through the casthouse roof monitor ID6013;
- (4) One (1) Slag Pit, identified as IDSP0371, exhausting fugitive emissions.
- (g) One (1) blast furnace gas distribution system consisting of instrumentation and valves designed to limit the maximum pressure through the distribution system by venting excess pressure to the three (3) bleeder stacks equipped with Flare No. 1 Identified as BG6073, constructed before 1920, Flare No. 2, identified as BG6074 constructed before 1920 and Flare No. 4 identified as BG6075, constructed in 1974.
- (h) One (1) iron beaching process, constructed prior to 1965, identified as IMIB0378, exhausting through stack IM6025.
- (i) One (1) transfer ladle maintenance operation, constructed prior to 1965, identified as, IMVM0375, exhausting through stack IM6025.

#### **Number One Basic Oxygen Process (BOP) Shop**

- (a) Two (2) Stations, identified as No. 1 and No. 2, Desulfurization Stations (originally constructed in 1981) and Hot Metal Transfer Stations (originally constructed in 1965), and replaced in 1998. Each station consists of Hot Metal Desulfurization, SSSD0201, Hot Metal Transfer Stations SSMT0203 and Slag Skimming SSSS0205. Hot metal from the blast furnaces is desulfurized and skimmed prior to charging in the steel making vessels. The maximum capacity of each station is 456 tons per hour. Each station is equipped with a local exhaust ventilation hood to capture emissions ducted to the Hot Metal Desulfurization/Skimming Stations Baghouse SS3100, equipped with a leak detection system, exhausting through stack SS6100. The desulfurization units are equipped with nitrogen suppression around where the desulfurization lance penetrates the hood hole.
- (b) One (1) Flux handling system, identified as SSFH0206, constructed in 1965, used for unloading, temporary storage, and transfer of fluxing agents to the steel making vessels, with a maximum capacity of 63 tons per hour. Emissions are controlled by No.2, No. 3 and No. 4 bag houses SS3058, SS3059, and SS3053, all exhausting inside the building.
- (c) Basic Oxygen Process (BOP) Furnace operations, constructed in 1965, consisting of BOP vessel M, identified as SSVM0234, vessel E, identified as SSVE0235 and vessel D, identified as SSVD0236, with a maximum capacity of 250 tons per hour each. Emissions are controlled by an exhaust emission hood collection system, which exhausts emissions to the Gas Cleaning Systems SS3103 and SS3104.
- (d) Two (2) gas cleaning systems SS3103 and SS3104 that process the exhaust gases from the three (3) steel making vessels consisting of three (3) quenchers, two (2) scuppers, two (2) venturi scrubbers, two (2) separators, two (2) gas coolers fitted with internal mist eliminators and two (2) induced draft fans. Emissions exhaust through stacks SS6102 and SS6103.

- (e) CASbell/OB Lancing Stations M, D and E, include the controlled argon stirring process and blowing of oxygen to maintain temperature and chemistry. Constructed in 1981, Station M identified as SSCM0231, Station E identified as SSCE0232, and Station D identified as SSCD0233 with a maximum capacity of 250 tons per hour each. Emissions are controlled by the CASbell/OB Lancing baghouse SS3105, exhausting through Stack SS6104 and uncaptured emissions venting to the roof monitor SS6636.
- (f) One (1) Slingot Station, including the casting of bottom-poured steel ingots, identified as SSST0226, constructed in 1965, exhausting to the roof monitor SS6637.
- (g) Nine (9) natural gas fired Ladle Preheaters and Dryers identified as No. 1 through 9, with 1 through 4, constructed in 1983, 5 and 6 constructed in 1982 and 7 through 9 construction unknown. Six (6) Preheaters with a capacity of 14 MMBtu/hr each and three (3) Dryers with a capacity of 10 MMBtu/hr each, identified as SSLP0229, exhausting through Roof Monitor SS6637.
- (h) One (1) Continuous Caster, identified as SCSC0274, constructed in 1967, including a Tundish dryer with a heating capacity of 7.0 MMBtu/hr per hour, continuously casting steel slabs with a maximum capacity of 445 tons per hour. Emissions exhaust through Roof Monitor SS6638.
- (i) One (1) fugitive emissions mitigation system at the No.1 BOP Shop, constructed in June 2002, consisting of a capture hood system ducted to a 99% efficient baghouse with a flow rate of 11,500 acfm.

#### **Number Two Q-BOP Shop**

- (a) Two (2) Hot Metal Desulfurization Stations, identified as NSDS0246, constructed in 1987, with a maximum capacity of 510 tons per hour. Emissions are controlled by a baghouse NS3115, exhausting through stack NS6144 and fugitive emissions exhausting through the roof monitor NS6631.
- (b) Two (2) Hot Metal Mixers, identified as NSMM0264 and two (2) Hot Metal Mixer Heaters, identified as NSMH0251, constructed in 1973, with a maximum capacity of 255 tons per hour. The natural gas fired mixer heaters have a heat input capacity of 10 MMBtu/hr each. Emissions from the mixers and heaters are controlled by the Desulfurization Station Baghouse NS3115, exhausting through stack NS6144 and the fugitive emissions through roof monitor NS6631.
- (c) Q-Basic Oxygen Process (BOP) operations, constructed in 1973, consisting of BOP vessel T identified as NSVT0268, vessel W, identified as NSVW0269, and vessel Y, identified as NSVY0270, each with a maximum capacity of 500 tons per hour. Primary emissions are controlled by two (2) Gas Cleaning Systems, secondary emissions are controlled by the Secondary Emissions Baghouse NS3124, exhausting to stack NS6123, and uncontrolled emissions exhaust through Roof Monitor NS6632.
- (d) Two (2) Gas Cleaning Systems, identified as NS3125 and NS3126 located in the gas cleaner facility, constructed in 1973, process the exhaust gases from the three (3) steel making vessels through three (3) quenchers, two (2) scuppers (tank like structures that remove excess quench water and solids from the gas stream), two (2) venturi scrubbers, two (2) separators, two (2) gas coolers with mist eliminators, two (2) induced draft fans and two (2) whirl vanes exhausting to Stacks NS6124 and NS6125.
- (e) Three (3) Flux Bins T, W, and Y, identified as NSVT0265, NSVW0266 and NSVY0267, constructed in 1973, with a maximum capacity of 141 tons per hour each. Emissions are controlled by five (5) baghouses. Three (3) Flux Transfer Baghouses at 166' level identified as NS3112, NS3108, and NS3107, exhausting through Stacks NS6623, NS6627 and NS6628 returning emissions back to the process; One (1) North Flux

Handling Baghouse at 116' level identified as NS3109 and one (1) South Flux Handling Baghouse at 116' level identified as NS3110, exhausting through stacks NS6626 and NS6625. Uncontrolled emissions exhaust through the roof monitor NS6632.

- (f) Three (3) Ladle Metallurgical Facilities, LMF1 identified as NSL10293, LMF 2 identified as NSL20294 were constructed in 1986 and LMF 3 identified as NSL30295, constructed in 1991 with a maximum capacity of 348 tons per hour each. Emissions from LMF 1 and 2 are controlled by Nos. 1 and 2 Hot Fume Exhaust baghouses NS3135 and NS3136, exhausting through stacks NS6146 and NS6147. Material handling emissions at LMF 1 and 2 are controlled by baghouse NS3052, exhausting through stack NS6055. The LMF 3 Hot Fume Exhaust and Material Handling emissions are controlled by baghouse NS3137, exhausting to stack NS6148. All uncontrolled emissions exhaust through the roof monitor NS6634.
- (g) One (1) R-H Vacuum Degasser, identified as NSVD0271, constructed in 1989, with a maximum capacity of 297.1 tons of steel per hour consisting of two (2) natural gas fired heaters, one (1) active and one (1) spare, identified as NSAB0276 and NSSB0275, with heat input capacities of 12 MMBtu per hour and 3 MMBtu per hour, respectively. Emissions are controlled with a flare that exhausts through Stack NS6145 and uncontrolled emissions exhaust through the Roof Monitor NS6634.
- (h) One (1) Slag Conditioning Station, constructed in 1997, with a maximum capacity of 297.1 tons of steel per hour.
  - (1) PM<sub>10</sub> emissions from the station are controlled by a baghouse exhausting through Stacks S-1 through S-6 and back to the process.
  - (2) PM<sub>10</sub> emissions from the material handling of slag conditioning and metallurgical agents are exhausted through the No. 1 Hot fume exhaust baghouse NS3135, exhausting through Stack NS6146.
- (i) One (1) Lime Dumping Station identified as NSFH0249, one (1) Daytank Lime Silo, identified as NSDS0250 and one (1) Desulfurization Lime and one (1) Mag Container identified as NSDS0245, constructed in 1971. Emissions are controlled by baghouses NS3122, NS3206 and NS3111, exhausting through the stacks NS6121, NS6629, and NS6624.
- (j) Three (3) Continuous Casting Lines, identified as Lines A, B and C identified as, NCCA0284, NCCB0285 and NCCC0286, with a total maximum capacity of 600 tons per hour combined. Lines A and B were constructed in 1986. Line C was constructed in 1991. Emissions from the continuous casters exhaust to the Roof Monitor NC6635. Emissions from Line C are discharged back to the slab spray water area for control.
- (k) Fourteen (14) natural gas fired Ladle Preheaters, identified as NBLD0262, eleven (11) with a heat input capacity of 9 MMBtu per hour each and three (3) with a heat input of 10 MMBtu per hour each. Emissions exhaust through Roof Monitor NS6633.
- (l) Two (2) Hot Metal Ladle Skimmers, identified as NSLS0248, constructed in 1973. Emissions exhaust through Roof Monitor NS6631.
- (m) Two (2) Skimming Stations, consisting of a skimmer, identified as NSS10292 and skimmer deslagger, identified as NSS20287. Both were constructed in 1973. Emissions exhaust through Roof Monitor NS6633.
- (n) One (1) Slingot Station, identified as NSST0290, constructed in 1986, with emissions exhaust through Roof Monitor NS6634.

## Hot Rolling Mill

- (a) Four (4) reheat furnaces Nos. 1, 2, 3 and 4, identified as RMF10500, RMF20501, RMF30502 and RMF40503 commenced operation in 1967, with heat input capacity of 600 MMBtu per hour each. Each furnace is equipped to combust natural gas and fuel oil, with emissions exhausting through Stacks RM6500, RM6501, RM6502 and RM6503.
- (b) Two (2) waste heat boilers Nos. 1 and 2, identified as RB1B0508 and RB2B0509, commenced operation in 1967, with a heat input capacity of 226 MMBtu per hour each. The heat input from these boilers is derived from a combination of waste heat ducted from the reheat furnaces and the combustion of natural gas and coke oven gas. Emissions exhaust through Stacks HB6504, HB6505, RM6500, RM6501, RM6502 and RM6503, depending upon heat input configuration.
- (c) One (1) 84-inch Hot Strip Mill, identified as RMV00504, commenced operation in 1967, with a maximum capacity of 856 tons per hour, consisting of vertical and horizontal scale breakers, 5 roughing mills and 7-stand finishing mill with emissions exhausting through a Roof Monitor RM6630.

## Continuous Pickling Lines

- (a) One (1) 84-inch Pickle Line, the North Continuous Pickle Line, identified as HWPO0625, constructed in 1968, with a maximum capacity of 314 tons per hour consisting of four (4) pickle tanks and two (2) rinse tanks (hot and cold). Emissions at this pickle line are controlled by a fume exhaust scrubber, HW3545 exhausting to stack HW6525.
- (b) One (1) 80-inch Pickle Line, the South Continuous Pickle Line, identified as HMPO0589, constructed in 1948, with a maximum capacity of 91 tons per hour, consisting of three (3) pickle tanks and two (2) rinse tanks (hot and cold). Emissions are controlled by a fume exhaust scrubber, HM3540, exhausting to stack HM6520.

## Sheet Products Division

- (a) North Sheet Mill
  - (1) One (1) 5-Stand Cold Reduction Mill, identified as H5M50637, constructed in 1964, with a maximum capacity of 380 tons per hour, consisting of 5 Mill Stands. Emissions are controlled by fume collection H53547, exhausting to Stack H56527.
  - (2) Twenty-six (26) 4-Stack "Box" Annealing Furnaces and 50 bases, identified as HTAF0813 through HTAF0838, constructed in 1964, with a heat input capacity of 10 MMBtu per hour each. These furnaces are direct fired with emissions exhausting through vent pipes HT6530 through HT6555.
  - (3) One (1) 80-inch temper mill, constructed in 1964, with a maximum capacity of 213 tons per hour, exhausting fugitive emissions.
  - (4) One (1) 80-inch Recoil Line, constructed in 1964, with a maximum capacity 114 tons per hour exhausting fugitive emissions.
- (b) South Sheet Mill
  - (1) Seventeen (17) 8-Stack "Box" Annealing furnaces and 66 bases, identified as HXBA0560 through HXBA0576, constructed in 1948. Eleven (11) furnaces have a heat input capacity of 15 MMBtu per hour each and the remaining six (6) are

rated at 18 MMBtu per hour each. Emissions from these furnaces exhaust through the Roof Monitor HX6003.

- (2) One (1) 2-Stand Temper Mill, identified as H2M00579, constructed in 1974, with a maximum capacity of 89 tons per hour. Emissions exhaust through the Roof Monitor H26004.
  - (3) One (1) No. 6 East Galvanizing Line, constructed in 1962, with a maximum capacity of 48 tons an hour, with one (1) annealing furnace identified as H6F10527 with a heat input of 45 MMBtu per hour and emissions through stack H66516. Also, contains one (1) Galvanneal Furnace identified as HF20529 with a heat input capacity of 20.0 MMBtu per hour and emissions exhausting through Roof Monitor H66006.
  - (4) Two (2) hydrogen atmosphere batch annealing furnaces, with a total heat input capacity of 10.26 MMBtu per hour, constructed in 1997, consisting of three (3) fixed bases and two (2) movable cooling hoods.
  - (5) One (1) 84-inch Hot Roll Temper Mill, constructed in 1967, with a maximum capacity of 124 tons per hour, exhausting fugitive emissions.
  - (6) One (1) coil prep line, constructed in 1968, with a maximum capacity of 73 tons per hour, exhausting fugitive emissions
- (c) Electro-galvanizing Line (EGL)
- (1) One (1) Electro-galvanizing Line (EGL), with one HCl pickle tank, No.1 Pickle tank, identified as HET20685, a cleaner section, a plating section and associated scrubber, with a maximum capacity of 60.5 tons per hour. Emissions from the Pickle Section are controlled by a fume scrubber HE3583 exhausting through stack HE6563. The single sided process for this coating line was constructed in 1977 and was modified in 1993 to a double sided process for coating.
  - (2) One (1) natural gas fired Boiler No. 1 in the EGL Boiler House, identified as HBB10675, constructed in 1978 and modified in 2001, with a heat input capacity of 39.147 MMBtu per hour, exhausting through stack HB6559.

#### Tin Division

- (a) One (1) 6-Stand Cold Reduction Mill, identified as TRM00709, constructed in 1967, with a maximum capacity of 150 tons per hour. Emissions are controlled by a mist eliminator TR3600, exhausting to stack TR6575.
- (b) One (1) cleaning line, identified as No. 7 Cleaning Line, constructed in 1967, with a maximum capacity of 80 tons per hour. Emissions are controlled by a fume scrubber exhausting to a stack.
- (c) Two (2) Annealing Lines, No. 1 and No. 2, each containing an annealing furnace, identified as T1AF0794 and T2AF0799, No.1 constructed in 1950 and No. 2 constructed in 1959, with a maximum heat input capacities of 32 and 35 MMBtu per hour, respectively. Emissions exhaust to stacks T16609 and T26610. The No. 2 Continuous Anneal Line has a cleaning section with emissions collected in a fume scrubber exhausting through a stack.
- (d) Five (5) 4-Stack "Box" Annealing Furnaces and 12 bases, identified as TXAF0765 through TXAF0769, constructed in 1968. All furnaces have a heat input of 10.5 MMBtu per hour each. Emissions exhaust to stacks TX6580 through TX6584.

- (e) One (1) 48-inch Temper Mill, constructed in 1958, with a maximum capacity of 150 tons per hour, exhausting fugitive emissions. This unit has a dust filter that exhausts inside the building.
- (f) One (1) Double Reduction Mill with two (2) mill stands, identified as TDMO0742, constructed in 1963, with a capacity of 75 tons per hour. Emissions are controlled by a mist eliminator D3603, exhausting to stack TD6595.
- (g) One (1) No.1 Tin Free Steel Line (TFS), constructed in 1950, with a capacity of 24 tons per hour. The TFS line contains a Chemical Treatment Tank, identified as TFT10752, exhausting to Roof Monitor, TF6661 and a Chemical treatment rinse, identified as TFR00753, exhausting to stack TF6597.
- (h) One (1) No. 5 Electrolytic Tinning Line 5 (ETL), constructed in 1957, and with a maximum capacity of 50 tons per hour. The No. 5 ETL contains a Plating and Chemical Treatment Tank, identified as TFR00777, with emissions exhausting through Roof Monitor T56071.
- (i) One (1) No. 6 Electrolytic Tinning Line (6 ETL), constructed in 1966, with a maximum capacity of 120 tons per hour. The 6 ETL also contains a Plating and Chemical Treatment Tank, identified as T6H00786, exhausting through Roof Monitor T56071.
- (j) One (1) Tin Anode Caster, constructed in 1965, with a maximum capacity of 0.57 tons per hour.
- (k) One (1) Tin Mill Recoil and inspection Line, constructed in 1967, with a capacity of 14.8 tons per hour.

#### **No. 4 Boiler House**

- (a) Two (2) Boilers, No. 1 and No. 2, identified as O4B10459 and O4B20460, constructed in 1967, equipped to combust natural gas, blast furnace gas and fuel oil, with a maximum heat input of 500 MMBtu per hour each, exhausting through Stacks O46268 and O46269, respectively.
- (b) One (1) Boiler, No. 3, identified as O4B30461, constructed in 1967, equipped to combust blast furnace gas and natural gas, with a maximum heat input of 500 MMBtu per hour, exhausting through Stack O46270.

#### **Turboblower Boiler House (TBBH)**

- (a) Three (3) Boilers, No. 1, No. 2 and No. 3, identified as OTB10462, OTB20463 and OTB30464, constructed in 1948, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a maximum heat input of 400 MMBtu per hour each, exhausting through Stacks OT6271, OT6272 and OT6273, respectively.
- (b) One (1) Boiler, No. 4A, identified as OTB40465, constructed in 1990, with a maximum heat input of 244 MMBtu per hour when combusting natural gas and coke oven gas. Emissions exhaust through Stack OT6274, with NO<sub>x</sub> emissions monitored by a Predictive Emissions Monitoring System (PEMS).
- (c) One (1) Boiler No. 5, identified as OTB50466, constructed in 1958, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a maximum heat input of 450 MMBtu per hour, exhausting through Stack OT6275.

- (d) One (1) boiler, No. 6, identified as OTB60467, constructed prior to August 17, 1971, equipped to combust blast furnace gas and natural gas, with a maximum heat input capacity of 710 MMBtu per hour, exhausting through Stack OT6276.

**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
- (j) Crusher Fugitive Emissions
- (k) Material Processing Facility Building Openings
- (l) Dust Handling Equipment

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

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- (a) Specifically regulated insignificant activities:
  - (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-5][326 IAC 8-3-6][326 IAC 8-9-1]
  - (2) Cleaners and solvents characterized as follows:
    - (A) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100EF) or;
    - (B) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.[326 IAC 8-3-5][326 IAC 8-3-6][326 IAC 8-9-1]
  - (3) The following VOC and HAP storage containers:
    - (A) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
    - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids. [326 IAC 8-9-1]
  - (4) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-1-2(a)]
  - (5) Any of the following structural steel and bridge fabrication activities:
    - (A) Cutting 200,000 linear feet or less of one inch (10) plate or equivalent.
    - (B) Using 80 tons or less of welding consumables. [326 IAC 6-1-2(a)]
  - (6) Conveyors as follows:

- (A) Covered conveyor for coal or coke conveying of less than or equal to 360 tons per day; [326 IAC 6-1-2(a)]
- (7) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-1-2(a)]
- (8) 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 6-1-2(a)]
- (9) Vents from ash transport systems not operated at positive pressure. [326 IAC 6-1-2(a)]

A.5 Part 70 Permit Applicability [326 IAC 2-7-2]

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This integrated steel mill 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]

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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)] [IC 13-15-3-6(a)]

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- (a) This permit, T089-7663-00121, 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 Term of Conditions [326 IAC 2-1.1-9.5]

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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:

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

### B.4 Enforceability [326 IAC 2-7-7]

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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, and the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

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

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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)]

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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)] [326 IAC 2-7-6(6)]

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- (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)]**

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- (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.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

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

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's 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 in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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

- (b) 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.
- (c) 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 the source, 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 the source.

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]**

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- (a) If required by specific condition(s) in Section D. of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
- (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.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management  
Compliance Branch, Office of Air Quality  
100 North Senate Avenue,  
Indianapolis, Indiana 46204

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs, including any record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) 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 PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) To the extent the Permittee is required by 40 CFR 60/63 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]**

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- (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 and Northwest Regional Office 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 Number: 317-233-5674 (ask for Compliance Section)  
Facsimile Number: 317-233-5967

Telephone Number : 1-888-209-8892 ( Northwest Regional Office)  
(Toll free within Indiana)  
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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) 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 in 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, 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 Permit Conditions Superseded [326 IAC 2-1.1-9.5] ] [326 IAC 2-7-10.5]**

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- (a) All terms and conditions of permits established prior to T089-7663-00121 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 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]**

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

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- (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 Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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.16 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]**

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- (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, determines any of the following: 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 determines any of the following: at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ determines any of the following: may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 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 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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

- (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.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]**

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- (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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204
- 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)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

**B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]**

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- (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)(D)(i) 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.20 Operational Flexibility [326 IAC 2-7-20] [326 IAC 2-7-10.5]**

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- (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 emissions allowable under 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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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 which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b)(1), (c)(1), or (e) and makes 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), (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 of 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 increases and decreases in emissions in 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.

**B.21 Source Modification Requirement [326 IAC 2-7-10.5]**

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- (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.22 Inspection and Entry [326 IAC 2-7-6] [IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

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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 and the 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 13-14-2-1, 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 13-14-2-1, 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 13-14-2-1, 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 13-14-2-1, 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.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]**

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- (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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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

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- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. In the event that the source is a sub-contractor and is combined with a larger Part 70 source, the larger Part 70 source may pay the Permittees' annual fees as part of the larger source billing and subject to the fee cap of the larger source. If, however, the larger Part 70 does not pay its annual Part permit fee, IDEM, OAQ will assess a separate fee in accordance with 326 IAC 2-7-19(c) to be paid by the Permittee. 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.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314]**

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Notwithstanding the conditions of this permit that state specific methods that may be used to demonstrate compliance with, or a violation of, applicable requirements, any person (including the Permittee) may also use other credible evidence to demonstrate compliance with, or a violation of, any term or condition of this permit.

## 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).

#### C.5 Fugitive Dust Emissions [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

- (a) Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Control Requirements), the particulate emissions from source wide activities shall meet the following requirements:
  - (1) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
  - (2) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
  - (3) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). 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 material processing facility as defined in 326 IAC 6-1-11.1(c) of material transfer for transportation within or outside the source property including, but not limited to the following:

- (A) Transfer of slag product for use by asphalt plants
  - (i) From a storage pile to a front end loader, and
  - (ii) From a front end loader to a truck.
- (B) Transfer of sinter blend for use at the sinter plant:
  - (i) From a storage pile to a front end loader,
  - (ii) From a front end loader to a truck, and
  - (iii) From a truck to the initial processing point.
- (C) Transfer of coal for use at a coal processing line:
  - (i) From a storage pile to a front end loader, and
  - (ii) From a front end loader to the initial coal processing line.

Compliance with any operation lasting less than three minutes shall be determined as an average of consecutive operations recorded at fifteen second intervals for the duration of the operation.

- (4) The opacity of fugitive particulate emissions from slag and kish handling when transferring from pots and trucks shall not exceed twenty percent (20%) on a six minute average.
- (5) The opacity of fugitive particulate emissions from continuous transfer of material onto or and out of storage piles shall not exceed ten percent (10%) on a three minute average.
- (6) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average. 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 such periods, the company 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 opacity limitation was not reasonable given prevailing wind conditions.
- (7) 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.
- (8) 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%).
- (9) 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.
- (10) The  $PM_{10}$  emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (11) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (12) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.
- (13) The  $PM_{10}$  emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity standard.

- (14) Fugitive particulate material from the material facilities except at a crusher in which a capture system is not used shall not exceed ten percent (10%) opacity.
- (15) Fugitive particulate matter from a crusher in which a capture system is not user shall not exceed fifteen percent (15%) opacity.
- (b) The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on January 28, 2000.
- (c) This source is subject to 326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures), because it is subject to the requirements of 326 IAC 6-1-11.1. Pursuant to this rule, the source shall comply with (h), (i), (k), (l), (m), (o), (p) and (q) of this rule.

#### C.6 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 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

#### C.7 Sulfur Dioxide (SO<sub>2</sub>) Limitation (Entire Source) [326 IAC 7-4-1.1(c)(22)(K) and (L)]

Pursuant to 326 IAC 7-4-1.1(c)(22)(K) and (L), the total actual heat input from coke oven gas, coal, and fuel oil usage at all facilities operating shall not exceed the following:

- (a) Two thousand seven hundred forty (2,740) million Btu per hour based on five hundred ten (510) million Btu per million cubic feet of coke oven gas,
- (b) Twenty-six (26) million Btu per ton of coal, and
- (c) One hundred fifty (150) million Btu per thousand gallons of fuel oil;
- (d) The sulfur dioxide emission rate from coke oven gas, except at the Coke Batter underfire Stacks Nos. 2, 3, 5 and 7(Section D.2), and from fuel oil shall not exceed one and seven-hundredths (1.07) pounds per million Btu.

#### C.8 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  
Asbestos Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos Inspector is not federally enforceable.

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

#### C.9 Performance Testing [326 IAC 3-6]

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- (a) All testing 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, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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) 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), all test reports 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.

**C.10 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis (Entire Source) [326 IAC 7-4-1.1(d)]**

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- (a) Pursuant to 326 IAC 7-4-1.1(d), and in order to comply with sulfur dioxide limitations in the D sections, the Permittee shall follow the Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis protocol submitted to IDEM, OAQ on December 13, 1996. The protocol submitted on December 13, 1996 by the Permittee is hereby incorporated by reference into this operating permit. The protocol shall contain at a minimum, the following:
  - (1) A description of planned procedures for sampling of sulfur-bearing fuels and materials, for analysis of the sulfur content, and for any planned direct measurement of sulfur dioxide emissions vented to the atmosphere.
  - (2) The frequency of sampling, analysis, and/or measurement for each fuel and material and for each facility.
- (b) IDEM, OAQ may revise the protocol as necessary to establish acceptable sampling, analysis, and/or measurement procedures and frequency.
- (c) IDEM, OAQ may also require that a source conduct a stack test at any facility listed in this section within thirty (30) days of written notification by the IDEM-OAQ.

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

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

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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. Any 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.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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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 Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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.13 Continuous Compliance Plan [326 IAC 6-1-10.1(l)][326 IAC 6-1-10.1(u)]**

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- (a) Pursuant to 326 IAC 6-1-10.1(l), 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 6-1-10.1 (p) through (r) or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6-1-10.1(u), 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 IDEM, OAQ. The Permittee shall submit the updated CCP to IDEM, OAQ within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6-1-10.1, failure to submit a CCP, maintain all information required by the CCP at the source, or submit updates to a CCP is a violation of 326 IAC 6-1-10.1.

**C.14 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]**

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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.15 Pressure Gauges and Other Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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- (a) Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (b) Whenever a condition in this permit requires the measurement of temperature or flow rate, the instrument employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ( $\pm 2\%$ ) of full scale reading.
- (c) The Permittee may request the IDEM, OAQ approve the use of a pressure gauge or other instrument that does not meet the above specifications provided the Permittee can demonstrate an alternative pressure gauge or other instrument specification will adequately ensure compliance with permit conditions requiring the measurement of pressure drop or other parameters.

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

**C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on October 5, 1996.
- (b) 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.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

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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.18 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

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(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan) under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions.] A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan [ or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)] and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan [ or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)] to include such response steps taken.

The OMM Plan (or Parametric Monitoring and SSM Plan) shall be submitted within the time frames specified by the applicable 40 CFR 60/63 requirements.]

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan [or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)]; or
  - (2) If none of the reasonable response steps listed in the Compliance Response Plan [or Operation, Maintenance and Monitoring (OMM) Plan (or Parametric Monitoring Plan and Start-up, Shutdown, and Malfunction (SSM) Plan)] is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
  - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.

- (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
  - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
  - (3) An automatic measurement was taken when the process was not operating.
  - (4) The process has already returned or is returning to operating within “normal” parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.19 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]  
[326 IAC 2-7-6]

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- (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.20 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]

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- (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 purpose of 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  
Indianapolis, Indiana 46204

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.21 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

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- (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 that a “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, other than projects at a Clean Unit, 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) Prior to commencing the 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)(3) 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.22 Sulfur Dioxide (SO<sub>2</sub>) Record keeping Requirements (Entire Source) [326 IAC 7-4-1.1(c)(22)(M)(i) and (ii)]

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- (a) The Permittee shall maintain records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at each facility listed in 326 IAC 7-4-1.1(c)(22)(A) through (K).
- (b) The Permittee shall maintain records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter and of the actual heat input for facilities listed in 326 IAC 7-4-1.1(c)(22)(G) through (H).

C.23 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

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- (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 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 Data Section, Office of Air Quality  
100 North Senate Avenue,  
Indianapolis, Indiana 46204
- (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  
Air Compliance Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

- (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, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

C.24 Sulfur Dioxide (SO<sub>2</sub>) Reporting Requirements (Entire Source) [326 IAC 7-4-1.1(c)(22)(M)(iii)]  
Pursuant to 326 IAC 7-4-1.1(c)(22)(M) A summary of the calculated sulfur dioxide emission rates in pounds per MMBtu or in pounds per hour, the types of fuel and actual fuel usage for each day and any violations, for each combustion unit, furnace boiler or process operation at each facility for each day during the calendar quarter shall be submitted to IDEM within thirty (30) days at the end of each calendar quarter for facilities listed in 326 IAC 7-4-1.1(c)(22)(G), for each facility for each day during the calendar quarter, the total fuel usage for each type at each facility for each day, and any violations of 326 IAC 7-4-1.1(c)(22) (D)(iv), (G)(i), (H)(i), (H)(ii), (I), (J)(i), (J)(ii), (K),

or (M). The report does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

### **Stratospheric Ozone Protection**

#### **C.25 Compliance with 40 CFR 82 and 326 IAC 22-1**

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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.1

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: One (1) Coal Handling Operation

- (a) One (1) coal car bottom thaw shed, identified as CHY00071, constructed in 1959, combusting coke oven gas, with a maximum heat input capacity of 25 MMBtu per hour, with an open flame heater, exhausting uncontrolled fugitive emissions.
- (b) One (1) coal car side thaw station, identified as CHT0001, constructed in 1959, combusting natural gas, with a maximum heat input capacity of 15 MMBtu per hour, with an open flame heater, exhausting uncontrolled fugitive emissions.
- (c) One (1) No. 2 Coke Battery Precarbonization facility, consisting of three (3) lines, Line A, Line B and Line C identified as CH2A0020, CH2B0021 and CH2C0022, constructed prior to October 24, 1974, each with a maximum capacity of 153.5 tons per hour. Particulate matter emissions from the three lines are controlled by electrostatic precipitators (ESP), ESP A, ESP B and ESP C, identified as CH3029, CH3030 and CH3031, exhausting through stacks CH6034, CH6035 and CH6037, respectively.
- (d) One (1) No. 3 Coke Battery Precarbonization facility consisting of three (3) lines Line A, Line B and Line C identified as CH3A0017, CH3B0018 and CH3C0019, constructed prior to October 24, 1974, each with a maximum capacity of 153.5 tons per hour. Particulate matter emissions from the three lines are controlled by electrostatic precipitators (ESP), ESP A, ESP B and ESP C, CH3026, CH3027 and CH3028, exhausting through stacks CH6028, CH6029 and CH6031, respectively.
- (e) One (1) coal crushers: HiVol (3) hammer mills with a maximum capacity of 160 tons per hour, LoVol (3) hammer mills with a maximum capacity of 150 tons per hour, and MidVol (2) hammer mills with a maximum capacity of 100 tons per hour, that exhausts into the totally enclosed coal blending building.
- (f) One (1) crusher, modified in 1999, to be used as a second coal crusher, with a maximum capacity of 1,200 tons per hour when used as a coal crusher. Emissions exhaust to the totally enclosed coal blending building. This operation is a totally enclosed hammer mill.
- (g) Coal Handling Storage Facilities, identified as emission unit CHSQ0003.

(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 PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)] [326 IAC 6-1-10.2(9)][326 IAC 11-3-2(a)]

Pursuant to 326 IAC 6-1-10.1(d)(36), 326 IAC 6-1-10.2(9) and 326 IAC 11-3-2(a), the PM<sub>10</sub> from the No. 2 Coke Battery Precarbonization Lines A, B, and C, ESP stacks CH6034, CH6035 and CH6037 and No. 3 Coke Battery Precarbonization Lines A, B, and C ESP stacks CH6028, CH6029 and CH6031 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Coke Battery # 2 Precarbonization Lines A, B, and C electrostatic precipitator stacks CH6034, CH6035 and CH6037 shall not exceed a total of 62.5 pounds per hour..
- (b) The PM<sub>10</sub> emissions from the Coke Battery # 3 Precarbonization Lines A, B, and C electrostatic precipitators stacks CH6028, CH6029 and CH6031 shall not exceed a total of 62.5 pounds per hour.



- (c) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description 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 Emission Limitations [326 IAC 6-1-2(a)]**

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Pursuant to 326 IAC 6-1-2 (a), particulate emissions from the coal car bottom thaw shed CHY00071, coal car side thaw station CHT00001 and pet coke crusher used as a second coal crusher shall not exceed three hundredths (0.03) grains per dry standard cubic feet (gr/dscf).

**D.1.3 Coke Oven Batteries Emission Limitations - Precarbonization [326 IAC 11-3-2(a)(1)]**

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Pursuant to 326 IAC 11-3-2(a)(1), particulate emissions from precarbonization towers shall be limited by the emission limitations determined in condition D.1.1.

**D.1.4 Opacity Limitations [326 IAC 6-1-10.2(c)(9)(B)]**

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Pursuant to 326 IAC 6-1-10.2(c)(9)(B), the visible emissions from the precarbonization towers shall comply with the requirements set forth in 326 IAC 5.

**D.1.5 Coke Oven Batteries Opacity Limitations [326 IAC 11-3-2(b)]**

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Pursuant to 326 IAC 11-3-2(b), the visible emissions from any precarbonization unit shall comply with the requirements set forth in 326 IAC 5-1.

**D.1.6 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]**

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The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart Y.

**D.1.7 New Source Performance Standards - Opacity Limitations Coal Preparation Plant [326 IAC 12-1][40 CFR 60 Subpart Y]**

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Pursuant to 40 CFR 60.250 through 60.254, Minor Source Modification 089-10551-00121, issued February 10, 1999, and A 089-11953-00121, issued April 15, 2000, the opacity from the coke crusher used as a second coal crusher shall not exceed twenty percent (20%).

**D.1.8 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]**

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Pursuant to 326 IAC 7-4-1.1(a), fossil fueled sources, the Coal Car Side Thaw Station CHT00001, shall burn natural gas only.

**D.1.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any associated control devices.

**Compliance Determination Requirements**

**D.1.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]**

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- (a) Pursuant to the protocol issued by IDEM May 16, 1997, incorporated as Exhibit C of the Agreed Order issued March 22, 1996, this performance test schedule is the alternative monitoring requirement for the Precarbonization Systems at Gary Coke Division, in lieu of installing and operating Continuous Opacity Monitors (COMs) on the six (6) Precarbon ESP stacks CH6034, CH6035, CH6037, CH6028, CH6029 and CH6031, as required by 326 IAC 6-1-10.1(g)(3).
- (b) Pursuant to the protocol issued by IDEM May 16, 1997, incorporated as Exhibit C of the Agreed Order issued March 22, 1996 the Permittee shall conduct the performance test for Particulate Matter, to demonstrate compliance by measuring combined filterable and condensable emissions utilizing Method 5 and Method 202 of 40 CFR 60 Appendix A or other methods as approved by the Commissioner.

- (c) Pursuant to Revised Source Testing Protocol for Nos. 2 and 3 Precarbonization Lines for Coke Batteries No. 2 and 3, respectively, in a letter dated June 29, 1998 the Permittee shall conduct the operation of a single Precarbonization Line through two ESPs. In order for the testing to represent the worst case emissions, the Permittee shall operate a single precarbon line through its associated ESP line with the tie lines between ESPs closed during the test. The results of this testing will be considered in compliance if the average PM<sub>10</sub> (filterable plus condensable) are less than 31.25 pounds per hour.

This test protocol modification reflects the change in operations of ESPs immediately after the precarbonization line returns from the “stand by” mode which results in decreased ESP collection efficiency.

- (d) Pursuant to a protocol dated May 16, 1997 incorporated by IDEM, as Exhibit C of the Agreed Order issued March 22, 1996, for Nos. 2 and 3 Precarbonization Lines for Coke Batteries No. 2 and 3, respectively The Permittee shall conduct performance test in accordance with (b) and (c) above for PM<sub>10</sub> emissions within a period of six (6) months of last compliant test.; This performance test shall be repeated within a period of six (6) months of the date of the last compliant test for the life of the precarbonization lines. All tests shall be performed in accordance with Section C – Performance Testing.

#### D.1.11 Particulate Matter Control

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- (a) The No. 2 Coke Battery Precarbonization ESPs CH3029, CH3030 and CH3031, shall be in operation for PM<sub>10</sub> control at all times the No. 2 Coke Battery Precarbonization lines A, B and C are in operation.
- (b) The No. 3 Coke Battery Precarbonization ESPs CH3026, CH3027 and CH3028 shall be in operation for PM<sub>10</sub> control at all times the No. 3 Coke Battery Precarbonization lines A, B and C are in operation.

### Compliance Monitoring Requirements

#### D.1.12 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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- (a) The ability of the ESPs CH3029, CH3030, and CH3031 to control particulate emissions shall be monitored once per shift, when the No. 2 Coke Battery Precarbonization Line A, B and C are in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the transformer-rectifier (T-R) sets.
- (b) The ability of the ESPs, CH3026, CH3027 and CH3028 to control particulate emissions shall be monitored once per shift, when the No. 3 Coke Battery Precarbonization Lines A, B and C are in operation, by measuring and recording the number of T-R sets in service and the primary and secondary voltages and the currents of the transformer-rectifier (T-R) sets.
- (c) Reasonable response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records and Reports whenever the percentage of T-R sets in service falls below 90 percent. T-R set failure resulting in less than 90 percent availability is not a deviation from this permit. Failure to taken response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

#### D.1.13 Preventive Inspections: Electrostatic Precipitator [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

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- (a) The following inspections shall be performed at least once every two years in accordance with the Preventive Maintenance Plan prepared in accordance with Section B - Preventive Maintenance Plan:

- (1) Plate and electrode alignment, every major maintenance outage, but no less than every 2 years;
  - (2) ESP TR set components, performed whenever there is an outage of any nature lasting more than three days, unless such inspections have been performed within the last six months. At a minimum, the following inspections shall be performed:
    - (A) Internal inspection of shell for corrosion (i.e., doors, hatches, insulator housing, roof area).
    - (B) Effectiveness of rapping (i.e., buildup of dust on discharge electrodes and plates).
    - (C) Gas Distribution (i.e., buildup of dust on distribution plates and turning vanes).
    - (D) Dust accumulation (i.e., buildup of dust on shell and support members that could result in grounds or promote advanced corrosion.)
    - (E) Major misalignment of plates (i.e., visual checks of plate alignment).
    - (F) Rapper, vibrator and TR set control cabinets (motors, lubrication, etc.)
    - (G) Rapper assembly (i.e., loose bolts, ground wires, water in air lines, solenoids, etc.)
    - (H) Vibrator and rapper seals (i.e., air in-leakage, wear, and deterioration)
    - (I) TR set controllers (i.e., low voltage trip point, over current trip, spark rate, etc.)
    - (J) Vibrator air pressure settings
  - (3) Air and water infiltration, once/month. The recommended method for this inspection is for audible checks around ash hoppers/hatches, duct expansion joints, and areas of corrosion.
- (b) Reasonable response steps shall be taken in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports for any improper or abnormal conditions found during an inspection. Discovery of an abnormal or improper condition is not a deviation from this permit.) Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

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

#### **D.1.14 Record Keeping Requirements**

- (a) To document compliance with Condition D.1.10, the Permittee shall maintain records of the relevant parameters which are indicative of process and control device operation for the life of the Nos. 2 and 3 Coke Battery Precarbonization facilities as observed during previous compliant stack test. .
- (b) To document compliance with the Condition D.1.12, the Permittee shall maintain records of the once per shift monitoring of the number T-R Sets in service.
- (c) To document compliance with Condition D.1.13, the Permittee shall maintain records of the inspections required in Condition D.1.13.
- (d) To document compliance with Condition D.1.9, the Permittee shall maintain of records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (e) All records shall be maintained in accordance with Section C - General Record Keeping requirements of this permit.

#### D.1.15 Reporting Requirements

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Pursuant to a protocol incorporated May 16, 1997 by IDEM, as Exhibit C of the Agreed Order issued March 22, 1996 and condition D.1.1, the Permittee shall submit quarterly reports on relative parameters which are indicative of process and control device operation when compared to observed in previous compliant stack tests for the life of the Nos. 2 and 3 Coke Battery Precarbonization facilities. 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

## OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: The Coke Battery Operations

#### (a) No. 2 Coke Battery

- (1) One (1) six (6) meter tall vertical flue coke battery with 57 ovens, No. 2 Coke Battery, identified as CP2B0079, constructed in November 1973, with a maximum charging capacity of 217 tons per hour. Excessive coke oven gas back pressure is controlled by three (3) flares lit with internal flare igniters CP3060, CP3061 and CP3062, exhausting to Bypass/Bleeder Flare Stacks CP6105, CP6106 and CP6107.
- (2) The No. 2 Coke Battery underfiring system has a maximum combustion heat input capacity of 198 MMBtu per hour, exhausting to stack CP6040 equipped with a continuous opacity monitor (COM).
- (3) The No. 2 Coke Battery has a maximum pushing capacity of 161 tons of coke per hour, with particulate emissions controlled by a Mobile Scrubber Car 2-9121, identified as CP3034, exhausting to Stack CP6041.
- (4) Nos. 2 and 3 Quench Towers identified as CP1Q0080 and CP2Q0081, constructed in 1975, with a maximum combined capacity of 322 tons of coke per hour, each equipped with a quench water header and baffle system with sprays. These towers service Nos. 2 and 3 Coke Batteries.
- (5) The No. 2 Coke Battery fugitive emissions are generated from charging operations, off take piping, door leaks, lid leaks and collector main leaks.

#### (b) No. 3 Coke Battery

- (1) One (1) six (6) meter tall vertical flue coke battery with 57 ovens, No.3 Coke Battery, identified as CP3B0086, constructed in November 1974, with a maximum charging capacity of 217 tons per hour., Excessive coke oven gas back pressure is controlled by three (3) flares lit with internal flare igniters CP3063, CP3064 and CP3065, exhausting to Bypass/Bleeder Flare stacks CP6108, CP6109 and CP 6110.
- (2) The No. 3 Coke Battery underfiring system has a maximum combustion heat input capacity of 198 MMBtu per hour, exhausting to stack CP6045, equipped with a continuous opacity monitor (COM).
- (3) The No. 3 Coke Battery has a maximum pushing capacity of 161 tons of coke per hour, with particulate emissions controlled by a Mobile Scrubber Car 3-9122, identified as CP3038, exhausting to stack CP6046.
- (4) The No. 1 Quench Tower, identified as CP3Q0087, constructed in 1975, with a maximum capacity of 322 tons of coke per hour, equipped with a quench water header and baffle system with sprays. This tower services Nos. 2, 3, 5 and 7 Coke Batteries.
- (5) The No. 3 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lid leaks and collector main leaks.

(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)]:** The Coke Battery Operations (continued):

(c) No. 5 Coke Battery

- (1) One (1) three (3) meter short vertical flue coke oven battery with 77 ovens, No. 5 Coke Battery, identified as CP5B0090, constructed in 1954, with a maximum charging capacity of 84 tons per hour. Excessive coke oven gas back pressure is controlled by two (2) flares lit with internal flare igniters CP3066 and CP3067, exhausting to Bypass/Bleeder Flare stacks CP6111 and CP 6112.
- (2) The No. 5 Coke Battery underfiring system has a maximum combustion heat input capacity of 115 MMBtu per hour, exhausting to stack CP6049, equipped with a COM.
- (3) The No. 5 and No.7 Coke Batteries have a combined maximum pushing capacity of 103 tons of coke per hour, with particulate emissions controlled by a common baghouse, identified as CP3041, exhausting to stack CP6050.
- (4) Nos. 5 and 6 Quench Towers identified as CP5Q0091 and CP5Q0095, constructed in 1954, with a maximum combined capacity of 103 tons of coke per hour, equipped with a quench water header and baffle system with sprays. These towers service Nos. 5 and 7 Coke Batteries.
- (5) The No. 5 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lid leaks and collector main leaks.

(d) No. 7 Coke Battery

- (1) One (1) three (3) meter short vertical flue coke oven battery, with 77 ovens, No.7 Coke Battery, identified as CP7B0094, constructed in 1954, with a maximum charging capacity of 84 tons per hour. Excessive coke oven gas back pressure is controlled by two (2) flares lit with internal flare igniters CP3068 and CP3069, exhausting to Bypass/Bleeder Flare stacks CP6113 and CP6114.
- (2) The No. 7 Coke Battery underfiring system has a maximum combustion heat input capacity of 115 MMBtu per hour, exhausting to stack CP6053 equipped with a COM.
- (3) The No. 5 and No.7 Coke Batteries have a combined maximum pushing capacity of 103 tons of coke per hour, with particulate emissions controlled by a common baghouse, identified as CP3041, exhausting to stack CP6050.
- (4) Nos. 5 and 6 Quench Towers identified as CP5Q0091 and CP5Q0095, constructed in 1954, with a maximum combined capacity of 103 tons of coke per hour, equipped with a quench water header and baffle system with sprays. These towers service Nos. 5 and 7 Coke Batteries.
- (5) The No. 7 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lids leaks and collector main leaks.

(e) Natural Gas Underfiring Injection System Jets

Three (3) natural gas injection jets, identified as CPNGI001, CPNGI002 and CPNGI003, constructed in 2001, with heat input capacities of 22 MMBtu per hour, 43 MMBtu per hour and 122 MMBtu per hour, respectively. Natural gas injection provided Btu stabilization control, coke oven gas quality control and emergency gas supply to the battery unfiring system.

(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 General Provisions relating to National Emission Standards for Hazardous Air Pollutant (NESHAP) [326 IAC 20-3][40 CFR Part 63, Subpart A]

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- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-3, apply to Battery 2, Battery 3, Battery 5 and Battery 7, except when otherwise specified in 40 CFR Part 63, Subpart L.
- (b) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-1-1, apply to Battery 2, Battery 3, Battery 5 and Battery 7, except when otherwise specified in Table 1 of 40 CFR Part 63, Subpart CCCCC. The Permittee must comply with these requirements on and or after April 14, 2006.
- (c) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (b) of this condition, except as otherwise provided in this condition. The permit shield applies to D.2.30, National Emissions Standards for Hazardous Air Pollutants 40 CFR Part 63 Subpart CCCCC –Notification Requirements.

### D.2.2 National Emission Standards for Hazardous Air Pollutants (NESHAP)- Coke Oven Batteries [326 IAC 20-3] [40 CFR Part 63, Subpart L]

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- (a) Pursuant to 40 CFR 63.304, the Permittee shall not cause to be discharged or allow to be discharged to the atmosphere coke oven emissions. Each coke oven battery CP2B0079, CP3B0086, CP5B0090 and CP7B0094 shall not exceed the following emission limitations or requirements:
  - (1) Four and three-tenths percent (4.3%) leaking coke oven doors for each tall 6 meter by-product coke oven battery,
  - (2) Three and eight-tenths percent (3.8%) leaking coke oven doors for each short 3 meter by-product coke oven
  - (3) Four-tenths percent (0.4%) leaking topside port lids;
  - (3) Two and five-tenths percent (2.5%) leaking off take systems.
  - (4) Twelve (12) seconds of visible emissions per charge
  - (5) On or after January 1, 2010, unless the US EPA or IDEM, OAQ promulgates more stringent limits pursuant to section 112(i)(8)(C) of Clean Air Act (CAA); the limit for each tall by-product coke oven battery, shall be four percent (4%) leaking coke oven doors and the limit for each short 3-meter coke oven battery shall be three and three-tenths (3.3%) leaking coke oven doors.
- (b) Pursuant to 40 CFR 63.306, Work Practice Standards, the Permittee shall maintain, a written emission control work practice plan for each coke oven battery. The plan shall be designed to achieve compliance with visible emission limitations for coke oven doors, topside port lids, off take systems, and charging operations under 40 CFR 63 Subpart L or, for a coke oven battery not subject to visible emission limitations under 40 CFR 63 Subpart L, other federally enforceable visible emission limitations for these emission points.
  - (1) The work practice plan must address each of the topics specified in paragraph (4) below in sufficient detail and with sufficient specificity to allow the IDEM, OAQ to evaluate the plan for completeness and enforceability.

- (2) The IDEM, OAQ may require revisions to the initial plan only where the IDEM, OAQ finds either that the plan does not address each subject area listed in paragraph (4) of D.2.2(b) for each emission point subject to a visible emission standard under 40 CFR 63 Subpart L or that the plan is unenforceable because it contains requirements that are unclear.
- (3) During any period of time that a Permittee is required to implement the provisions of a plan for a particular emission point, the failure to implement one or more obligations under the plan and/or any record keeping requirement(s) under 40 CFR 63.311(f)(4) for the emission point during a particular day is a single violation.
- (4) Plan components. The Permittee shall organize the work practice plan to indicate clearly which parts of the plan pertain to each emission point subject to visible emission standards under this subpart. Each of the following provisions, at a minimum, shall be addressed in the plan:
  - (A) An initial and refresher training program for all coke plant operating personnel with responsibilities that impact emissions, including contractors, in job requirements related to emission control and the requirements of this subpart, including work practice requirements. Contractors with responsibilities that impact emission control may be trained by The Permittee or by qualified contractor personnel; however, the Permittee shall ensure that the contractor training program complies with the requirements of this section. The training program in the plan must include:
    - (i) A list, by job title, of all personnel that are required to be trained and the emission point(s) associated with each job title;
    - (ii) An outline of the subjects to be covered in the initial and refresher training for each group of personnel;
    - (iii) A description of the training method(s) that will be used (e.g., lecture, video tape);
    - (iv) A statement of the duration of initial training and the duration and frequency of refresher training;
    - (v) A description of the methods to be used at the completion of initial or refresher training to demonstrate and document successful completion of the initial and refresher training; and
    - (vi) A description of the procedure to be used to document performance of plan requirements pertaining to daily operation of the coke oven battery and its emission control equipment, including a copy of the form to be used, if applicable, as required under the plan provisions implementing paragraph 40 CFR 63.306(b)(7).
  - (B) Procedures for controlling emissions from coke oven doors on by-product coke oven batteries, including:
    - (i) A program for the inspection, adjustment, repair, and replacement of coke oven doors and jambs, and any other equipment for controlling emissions from coke oven doors, including a defined frequency of inspections, the method to be



- used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
- (ii) Procedures for identifying leaks that indicate a failure of the emissions control equipment to function properly, including a clearly defined chain of command for communicating information on leaks and procedures for corrective action;
  - (iii) Procedures for cleaning all sealing surfaces of each door and jamb, including identification of the equipment that will be used and a specified schedule or frequency for the cleaning of sealing surfaces;
  - (iv) For batteries equipped with self-sealing doors, procedures for use of supplemental gasketing and luting materials, if the Permittee elects to use such procedures as part of the program
  - (v) For batteries equipped with hand-luted doors, procedures for luting and reluting, as necessary to prevent exceedances;
  - (vi) Procedures for maintaining an adequate inventory of the number of spare coke oven doors and jambs located onsite; and
  - (vii) Procedures for monitoring and controlling collecting main back pressure, including corrective action if pressure control problems occur.
- (C) Procedures for controlling emissions from charging operations on by-product coke oven batteries, including:
- (i) Procedures for equipment inspection, including the frequency of inspections, and replacement or repair of equipment for controlling emissions from charging, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
  - (ii) Procedures for ensuring that the larry car hoppers are filled properly with coal;
  - (iii) Procedures for the alignment of the larry car over the oven to be charged;
  - (iv) Procedures for filling the oven (e.g., procedures for staged or sequential charging);
  - (v) Procedures for ensuring that the coal is leveled properly in the oven; and
  - (vi) Procedures and schedules for inspection and cleaning of off-take systems (including standpipes, standpipe caps, goosenecks, dampers, and mains), oven roofs, charging holes, topside port lids, the steam supply system, and liquor sprays.

- (D) Procedures for controlling emissions from topside port lids on by-product coke oven batteries, including:
    - (i) Procedures for equipment inspection and replacement or repair of topside port lids and port lid mating and sealing surfaces, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances; and
    - (ii) Procedures for sealing topside port lids after charging, for identifying topside port lids that leak, and procedures for resealing.
  - (E) Procedures for controlling emissions from off take system(s) on by-product coke oven batteries, including:
    - (i) Procedures for equipment inspection and replacement or repair of off take system components, including the frequency of inspections, the method to be used to evaluate conformance with operating specifications for each type of equipment, and the method to be used to audit the effectiveness of the inspection and repair program for preventing exceedances;
    - (ii) Procedures for identifying off take system components that leak and procedures for sealing leaks that are detected; and
  - (F) Procedures for dampering off ovens prior to a push.
  - (G) Procedures for maintaining, for each emission point subject to visible emission limitations under this subpart, a daily record of the performance of plan requirements pertaining to the daily operation of the coke oven battery and its emission control equipment, including:
    - (i) Procedures for recording the performance of such plan requirements; and
    - (ii) Procedures for certifying the accuracy of such records by the Permittee.
  - (H) Any additional work practices or requirements specified by the IDEM, OAQ, according to 40 CFR 63.306(d).
- (5) Implementation of work practice plans. The Permittee shall implement the provisions of the coke oven emission control work practice plan according to the following requirements:
- (A) The Permittee shall Implement the provisions of the work practice plan pertaining to a particular emission point following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period, by no later than 3 days after receipt of written notification of the second such exceedance from the certified observer. For the purpose of this 40 CFR 63.306(c)(1)(i), the second exceedance is "independent" if either of the following criteria is met:

- (i) The second exceedance occurs 30 days or more after the first exceedance;
    - (ii) In the case of coke oven doors, topside port lids, and off take systems, the 29-run average, calculated by excluding the highest value in the 30-day period, exceeds the value of the applicable emission limitation; or
    - (iii) In the case of charging emissions, the 29-day logarithmic average, calculated in accordance with Method 303 in appendix A to 40 CFR 63 by excluding the valid daily set of observations in the 30-day period that had the highest arithmetic average, exceeds the value of the applicable emission limitation.
  - (B) Continue to implement such plan provisions until the visible emission limitation for the emission point is achieved for 90 consecutive days if work practice requirements are implemented pursuant to 40 CFR 63.306(c)(1)(i) of this section. After the visible emission limitation for a particular emission point is achieved for 90 consecutive days, any exceedances prior to the beginning of the 90 days are not included in making a determination 40 CFR 63.306(c)(1)(i)
- (6) Revisions to the work practice emission control plan will be governed by the following provisions in 40 CFR 63.306(d) and (a)(2).
- (A) The IDEM, OAQ may request the Permittee to review and revise as needed the work practice emission control plan for a particular emission point if there are 2 exceedances of the applicable visible emission limitation in the 6-month period that starts 30 days after the Permittee is required to implement work practices under 40 CFR 63.306(c). In the case of a coke oven battery subject to visual emission limitations under this subpart, the second exceedance must be independent under the criteria in 40 CFR 63.306(c)(1)(i).
  - (B) The IDEM, OAQ may not request the Permittee to review and revise the plan more than twice in any 12 consecutive month period for any particular emission point unless the IDEM, OAQ disapprove the plan according to the provisions of 40 CFR 63.306(d)(6).
  - (C) If the certified observer calculates that a second exceedance (or, if applicable, a second independent exceedance) has occurred, the certified observer shall notify the Permittee. No later than 10 days after receipt of such a notification, the Permittee shall notify the IDEM, OAQ of any finding of whether work practices are related to the cause or the solution of the problem. This notification is subject to review by the IDEM, OAQ, according to the provisions in 40 CFR 63.306(d)(6).
  - (D) The Permittee shall submit a revised work practice plan within 60 days of notification from the IDEM, OAQ pursuant to 40 CFR 63.306(d)(1) unless IDEM, OAQ grants an extension of time to submit the revised plan.
  - (E) If the IDEM, OAQ require a plan revision, the IDEM, OAQ may require the plan to address a subject area or areas in addition to those in 40 CFR 63.306(b), if the IDEM, OAQ determine that without plan coverage of such an additional subject area, there is a reasonable probability of further exceedances of the visible emission limitation for the emission point for which a plan revision is required.

- (F) The IDEM, OAQ may disapprove a plan revision required under 40 CFR 63.306(d) if the IDEM, OAQ determine that the revised plan is inadequate to prevent exceedances of the visible emission limitation under 40 CFR 63 Subpart L for the emission point for which a plan revision is required or, in the case of a battery not subject to visual emission limitations under this subpart, other federally enforceable emission limitations for such an emission point. The IDEM, OAQ may also disapprove the finding that may be submitted pursuant to the 40 CFR 63.303(d)(3) if the IDEM, OAQ determine that a revised plan is needed to prevent exceedances of the applicable visible emission limitations.
- (c) Pursuant to 40 CFR 63.307 Standards for Bypass/Bleeder Stacks, the Permittee shall do the following:
- (1) Install a bypass/bleeder stack flare system that is capable of controlling 120 percent of the normal gas flow generated by the battery, which shall thereafter be operated and maintained.
  - (2) Coke oven emissions shall not be vented to the atmosphere through bypass/bleeder stacks, except through the flare system.
  - (3) Each flare shall be designed for a net heating value of 8.9 MJ/scm (240 Btu/scf) if a flare is steam-assisted or air-assisted, or a net value of 7.45 MJ/scm (200 Btu/scf) if the flare is non-assisted.
  - (4) Each flare shall have either a continuously operable pilot flame or an electronic igniter that meets the requirements of D.2.2 (c)(6) and (c)(7) below.
  - (5) Each electronic igniter shall meet the following requirements:
    - (A) Each flare shall be equipped with at least two igniter plugs with redundant igniter transformers;
    - (B) The ignition units shall be designed failsafe with respect to flame detection thermocouples (i.e., any flame detection thermocouples are used only to indicate the presence of a flame, are not interlocked with the ignition unit, and cannot deactivate the ignition system); and
    - (C) Integral battery backup shall be provided to maintain active ignition operation for a minimum of 15 minutes during a power failure.
    - (D) Each electronic igniter shall be operated to initiate ignition when the bleeder valve is not fully closed as indicated by an "OPEN" limit switch.
  - (7) Each flare constructed that does not have an electronic igniter shall be operated with a pilot flame present at all times as determined by 40 CFR 63.309 (h)(2).
  - (8) Each flare constructed to meet the requirements of 40 CFR 63.307(b) shall be operated with no visible emissions, as determined by the methods specified in 40 CFR 63.309 (h)(1), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (d) Pursuant to 40 CFR 63.308 Standards for collecting mains, the Permittee shall do the following:
- (1) Inspect the coke oven battery collecting main for leaks at least once daily.

- (2) Record the time and date a leak is first observed, the time and date the leak is temporarily sealed, and the time and date of repair.
  - (3) Temporarily seal any leak in the collecting main as soon as possible after detection, but no later than 4 hours after detection of the leak.
  - (4) Initiate a collecting main repair as expeditiously as possible, but no later than 5 calendar days after initial detection of the leak. The repair shall be completed within 15 calendar days after initial detection of the leak unless an alternative schedule is approved by the IDEM, OAQ.
- (e) Pursuant to 40 CFR 63.310, (Requirements for startups, shut downs and malfunctions) the Permittee shall do the following:
- (1) Operate and maintain the coke oven batteries and their pollution control devices at all times including periods of startup, shut down and malfunction.
  - (2) Develop and implement a written startup, shut down and malfunction plan that describes procedures for operating the batteries, including associated control equipment, during a period of a startup, shutdown or malfunction in a manner consistent with good air pollution control practices for minimizing emissions, and procedures for correcting malfunctioning process and control equipment as quickly as practicable. Failure to adhere to these requirements shall not constitute a separate violation, if a violation of an applicable performance or work practice standard has also occurred.
  - (3) During a period of startup, shutdown or malfunction the Permittee shall do the following:
    - (A) Operate the coke batteries and their control devices according to the procedures in the startup, shut down and malfunction plan.
    - (B) Malfunctions shall be corrected as soon as practicable after their occurrence, in accordance with the Startup Shutdown and Malfunction (SSM) plan.
    - (C) Notify, with respect to the observation (or set of observations) for a particular day, the following of a startup, shutdown or malfunction:
      - (i) If practicable, to the certified observer, if the observer is at the facility during the occurrence; or
      - (ii) To the enforcement agency, in writing, within 24 hours of the occurrence first being documented by a company employee, and if the certified observer is not notified, an explanation of why the certified observer was not notified.
    - (D) Submit within 14 days of the notification made to the certified observer and enforcement agency, or after a startup or shutdown shall submit a written report to the IDEM, that describes the following:
      - (i) The time and circumstances of the startup, shutdown or malfunction, and
      - (ii) Actions taken that might be considered inconsistent with the startup, shutdown or malfunction plan.

- (E) Maintain a record of internal reports that are based on each malfunction notification.
- (F) Use the standard operating procedures manual for the batteries, to satisfy the requirements to develop a startup, shutdown or malfunction plan provided the manual meets all the requirements for the SSM plan and is made available for inspection at reasonable times when requested by the IDEM, OAQ.
- (G) Revise as directed by IDEM, OAQ the startup, shutdown or malfunction plan if the plan:
  - (i) Does not address a startup, shutdown or malfunction event that has occurred;
  - (ii) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions; or
  - (iii) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.
- (H) If the Permittee demonstrates to the satisfaction of the IDEM, OAQ that a startup, shutdown, or malfunction has occurred, then an observation occurring during such startup, shutdown, or malfunction shall not:
  - (i) Constitute a violation of relevant requirements of this subpart;
  - (ii) Be used in any compliance determination under 40 CFR 63.309; or
  - (iii) Be considered for purposes of 40 CFR 63.306, until the IDEM, OAQ have resolved the claim that a startup, shutdown, or malfunction has occurred. If the IDEM, OAQ determines that a startup, shutdown, or malfunction has not occurred, such observations may be used for purposes of 40 CFR 63.306, regardless of whether the Permittee further contests such determination. The Permittee's receipt of written notification from the IDEM, OAQ, that a startup, shutdown, or malfunction has not occurred will serve, where applicable under 40 CFR 63.306, as written notification from the certified observer that an exceedance has occurred.

D.2.3 National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching and Battery Stacks- Emission Limitations [40 CFR Part 63, Subpart CCCCC]

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- (a) The provisions of 40 CFR Part 63, Subpart CCCCC (National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching and Battery Stacks) apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery. A copy of this rule is available on the U.S. EPA Air Toxics Website at <http://www.epa.gov/ttn/atw/mcm/mcmpg.html>. The Permittee must comply with these requirements on and after April 14, 2006.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15

does not apply to paragraph (a) of this condition, except as otherwise provided in this condition. The permit shield applies to Condition D.2.30, National Emission Standards for Hazardous Air Pollutants from Coke Ovens: Pushing, Quenching and Battery Stacks – Reporting Requirements for Coke Oven Batteries.

- (c) Terminology used in this section are defined in the CAA, 40 CFR Part 63, Section 63.2, and in 40 CFR 63.7352 are applicable to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (d) Pursuant to 40 CFR 63.7290, the Permittee shall meet each emission limitation that applies to the capture systems and control devices for pushing emissions from No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (e) Pursuant to 40 CFR 63.7291, the Permittee shall meet each work practice standard for fugitive pushing emissions for by-product oven batteries with vertical flues that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (f) Pursuant to 40 CFR 63.7294, the Permittee shall meet each work practice standard for soaking that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (g) Pursuant to 40 CFR 63.7295, the Permittee shall meet each requirement for quenching that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (h) Pursuant to 40 CFR 63.7296, the Permittee shall meet each emission limitation for No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (i) Pursuant to 40 CFR 63.7300, the Permittee shall meet each operation and maintenance requirement that applies to No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and required capture and control equipment.
- (j) Pursuant to 40 CFR 63.7310(c), the Permittee shall develop and implement a written start-up, shutdown and malfunction plan. During periods of start-up, shutdown or malfunction, the Permittee shall operate in accordance with the plan and 40 CFR 63.7336(b).
- (k) Pursuant to 40 CFR 63.7330, the Permittee shall meet each monitoring requirement that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and required capture and control equipment.
- (l) Pursuant to 40 CFR 63.7331, the Permittee shall meet each requirement regarding installation, operation and maintenance of monitors for each monitor required by 40 CFR Part 63, Subpart CCCCC that applies to No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and required capture and control equipment.

D.2.4 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)] [326 IAC 6-1-10.2(8)][326 IAC 11-3-2(i)]

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Pursuant to 326 IAC 6-1-10.1(d)(36), 326 IAC 6-1-10.2(8) and 326 IAC 11-3-2(i), the PM<sub>10</sub> emissions from the Nos. 2, 3, 5 and 7 Coke Battery underfiring stacks and Coke Batteries 5/7 baghouse stack CP6050 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Coke Battery number 2 underfiring stack CP6040 shall not exceed 32.30 pounds per hour.

- (b) The PM<sub>10</sub> emissions from the Coke Battery number 3 underfiring stack CP6045 shall not exceed 25.50 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Coke Battery number 5 underfiring stack CP6049 shall not exceed 24.70 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Coke Battery number 7 underfiring stack CP6053 shall not exceed 21.30 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Coke Battery number 5/7 pushing emissions control baghouse shall not exceed 0.017 pound PM<sub>10</sub> per ton coke produced and 1.28 pounds per hour.
- (f) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving.”

#### D.2.5 Lake County PM<sub>10</sub> Coke Battery Emission Requirements [326 IAC 6-1-10.2]

The Coke Batteries Nos. 2, 3, 5 and 7 shall comply with the following:

- (a) Pursuant to 326 IAC 6-1-10.2(c)(1), no visible emissions shall be permitted from more than ten percent (10%) of the observed coke oven doors on any coke oven battery.
- (b) Pursuant to 326 IAC 6-1-10.2(c)(2), the visible emissions from the charging operations shall comply with the following:
  - (1) No visible emissions shall be permitted from the charging system for more than cumulative total of one hundred twenty-five (125) seconds during five (5) consecutive charging periods.
  - (2) A “charging system” in this subdivision, means the equipment required to add coal to a coke battery including a larry car, charge ports, jumper pipe and off take pipe.
- (c) Pursuant to 326 IAC 6-1-10.2(c)(3), the emissions from the pushing operations shall comply with the following:
  - (1) The opacity of emissions from the coke-side of an oven to be pushed, before the first movement of the coke from the oven to the coke car begins, shall not exceed twenty percent (20%).
  - (2) The opacity of emissions during the pushing operation shall not exceed twenty percent (20%). The pushing shall be considered to begin with the first movement of coke from the oven into the coke car and to end when the quench car enters the quench tower.
  - (3) The particulate emissions from the pushing control devices: No. 2 and No.3 Batteries Mobile scrubber cars 2-9121 and 3-9122 and No. 5 and No. 7 Coke Batteries Pushing Process Baghouse Stack CP6050 shall not exceed four-hundredths (0.04) pound per ton of coke pushed.
- (d) Pursuant to [326 IAC 6-1-10.2(c)(4), no visible emissions shall be permitted from more than three percent (3%) of the total charge port lids on operating ovens of a coke oven battery.
- (e) Pursuant to 326 IAC 6-1-10.2(c)(5), visible emissions from the Off take Piping shall comply with the following:



- (1) No visible emissions shall be permitted from more than five percent (5%) of the total off take piping on any coke oven battery.
  - (2) At no time, shall the visible emissions from any gooseneck cap opening exceed twenty percent (20%).
  - (3) An exclusion from the twenty percent (20%) gooseneck cap opacity limit shall be allowed for two (2) minutes after a gooseneck cap is opened.
- (f) Pursuant to 326 IAC 6-1-10.2 (c)(6), emissions from gas collector mains shall comply with the following:
- (1) No visible emissions shall be permitted from the gas collector mains.
  - (2) Caps on the collector main shall be exempt from requirement during maintenance.
- (g) Pursuant to 326 IAC 6-1-10.2(c)(7)(A), the quench water as applied to the coke shall not exceed one thousand five hundred (1,500) milligrams per liter of total dissolved solids (TDS).
- (h) Pursuant to 326 IAC 6-1-10.2(c)(7)(B), the Permittee shall submit the following information regarding its quenching operation in a CCP required to be submitted by 326 IAC 10.1(l):
- (1) The source of quench water, for example, Lake Michigan water only, or a mixture of Lake Michigan water, spent quench water, process water and miscellaneous sources of non process water.
  - (2) The volume of quench water and proportion of each source of water.
- (i) Pursuant to 326 IAC 6-1-10.2(c)(7)(C), all coke oven towers shall be equipped with baffles. Baffles shall cover ninety-five percent (95%) or more of the cross-sectional area of the exhaust vent or stack for straight quench towers and must be maintained in operable condition. For offset quench towers numbers 2 and 3 at US Steel, the number and arrangement of baffles in the tower shall be maintained as designed. Compliance with the quench tower baffle requirement shall be determined by comparison of the number and arrangement of baffles with the submitted plans.

#### D.2.6 Emission Limitations for Coke Oven Batteries [326 IAC 11-3-2]

The Coke Batteries Nos. 2, 3, 5 and 7 shall each comply with the following requirements:

- (a) Pursuant to 326 IAC 11-3-2(b), the visible emissions from the charging system (including any open charge port, off take system, mobile jumper pipe or larry car) shall not be visible for more than a cumulative total of one hundred twenty-five (125) seconds during five (5) consecutive charging periods.
- (b) Pursuant to 326 IAC 11-3-2(c), visible emissions shall not be permitted from more than three percent (3%) of the total charge port lids.
- (c) Pursuant to 326 IAC 11-3-2(d), No visible emissions shall be permitted from more than five percent (5%) of the total off take piping on any coke oven battery.
- (d) Pursuant to 326 IAC 11-3-2(e), No visible emissions shall be permitted from gas collector main on any coke oven battery.

- (e) Pursuant to 326 IAC 11-3-2(f), visible emissions shall not be permitted from more than ten percent (10%) of the total coke oven doors on any coke oven battery.
- (f) Pursuant to 326 IAC 11-3-2(g), the coke oven batteries pushing emissions requirements shall be as follows:
  - (1) All coke oven batteries shall be equipped with a device capable of capturing and collecting coke-side particulate matter such that the effluent gas emissions contain no more than four-hundredths (0.04) gram per two (2.0) kilogram of coke pushed.
  - (2) Such devices shall be designed and operated in compliance with an operating permit to collect ninety percent (90%) of the pushing emissions. If the construction and design of the device have been approved by the commissioner by granting the permit, the device, if operated properly in compliance with the permit conditions, will be assumed to be collecting ninety percent (90%) of the pushing emissions.
- (g) Pursuant to 326 IAC 11-3-2(h)(1), the Nos. 1, 2, 3, 5 and 6 quench towers shall not have visible emissions from the quenching of coke with the direct application of water to hot coke unless quenching is conducted under a tower equipped with efficient baffles to impede the release of particulate into the atmosphere. Efficient baffles are baffles taking the form of slats, louvers, screens, or other impediments placed in a configuration within a quench tower to force a change of direction and reduction of velocity of the steam plume to aid in the reduction of particulate matter emitted.
- (h) Pursuant to 326 IAC 11-3-2(h)(2), the quench water makeup shall not contain a total dissolved solids content of more than one thousand five hundred (1,500) milligrams per liter.
- (i) Pursuant to 326 IAC 11-3-2(i), the visible emissions and particulate emissions from the underfire stacks shall comply with the requirements of Conditions C.1 and D.2.4 of this permit.

#### D.2.7 Coke Oven Identification [326 IAC 11-3-3]

Pursuant to 326 IAC 11-3-3, the Permittee shall maintain the identity of each coke oven in such a manner that it is easily and readily visible from the topside and on each coke and push-side on every coke oven battery.

#### D.2.8 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(E)] [326 IAC 11-3-2(i)]

Pursuant to 326 IAC 7-4-1.1(c)(22) and 326 IAC 11-3-2(i), the SO<sub>2</sub> emissions from the Coke Battery underfiring stacks CP6040, CP6045, CP6049 and CP6043 for Nos. 2, 3, 5 and 7 coke batteries shall not exceed 1.3 pounds of SO<sub>2</sub> per MMBtu of heat input each.

#### D.2.9 Nitrogen Oxide (NO<sub>x</sub>) Limitations PSD [326 IAC 2-2] and Emissions Offsets [326 IAC 2-3]

Pursuant to the Significant Source Modification 089-12880-00121, issued July 26, 2001, the Natural gas usage injected through the coke oven battery natural gas injection jets CPNGI001, CPNGI002 and CPNGI003 shall not exceed 178.7 million cubic feet (MMCF) per 12-consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit makes 326 IAC 2-2 PSD and 326 IAC 2-3 not applicable for the modification.

#### D.2.10 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any associated control devices.

## Compliance Determination Requirements

### D.2.11 National Emission Standards for Hazardous Air Pollutants from Coke Oven Batteries - Visible Emissions Inspection Requirements [40 CFR 63.309][326 IAC 20]

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- (a) Pursuant to 40 CFR Part 63.309, except as otherwise provided, the Permittee shall conduct a performance test each day, 7 days per week, for each coke oven battery. The test results shall be used in accordance with procedures specified in 40 CFR Part 63 Subpart L to determine compliance with each of the applicable visible emission limitations in Condition D.2.2. If a facility pushes and charges only at night, then the facility must at its option, change their schedule and charge during daylight hours or provide adequate lighting so that visible emission inspections can be made at night. "Adequate lighting" will be determined by the enforcement agency.
- (1) Each performance test is to be conducted according to the procedures and requirements 40 CFR 63.309 and in Method 303 or 303A in appendix A 40 CFR Part 63 to this part or Methods 9 and 22 in appendix A to 40 CFR Part 60 (where applicable).
  - (2) Each performance test is to be conducted by a certified observer.
  - (3) The certified observer shall complete any reasonable safety training program offered by the Permittee prior to conducting any performance test at a coke oven battery.
  - (4) Except as otherwise provided in paragraph (a)(5) of 40 CFR 63.309, the Permittee shall pay an inspection fee to the enforcement agency each calendar quarter to defray the costs of the daily performance tests required under paragraph (a) of 40 CFR 63.309.
    - (A) The inspection fee shall be determined according to the following formula:  
$$F = H \times S \quad \text{where}$$

F = Fees to be paid by owner or operator.

H = Total person hours for inspections: 4 hours for 1 coke oven battery, 6.25 hours for 2 coke oven batteries, 8.25 hours for 3 coke oven batteries. For more than 3 coke oven batteries, use these hours to calculate the appropriate estimate of person hours.

S = Current average hourly rate for private visible emission inspectors in the relevant market.
    - (B) The Permittee shall not be required to pay an inspection fee (or any part thereof) under paragraph (a)(4) of 40 CFR 63.309, for any monitoring or inspection services required by paragraph (a) of 40 CFR 63.309 that the Permittee can demonstrate are covered by other fees collected by the enforcement agency.
    - (C) Upon request, the enforcement agency shall provide the Permittee information concerning the inspection services covered by any other fees collected by the enforcement agency, and any information relied upon under paragraph (a)(4)(B) of 40 CFR 63.309.
  - (5) The EPA shall be the enforcement agency during any period of time that a delegation of enforcement authority is not in effect or a withdrawal of enforcement authority under 40 CFR 63.313 is in effect, and the Administrator is responsible for performing the inspections required by this section, pursuant to 40 CFR 63.313(b).

- (6) Within thirty (30) days of receiving notification from the Administrator that the EPA is the enforcement agency for a coke oven battery, the Permittee shall enter into a contract providing for the inspections and performance tests required under this section to be performed by a Method 303 certified observer. The inspections and performance tests will be conducted at the expense of the Permittee, during the period that the EPA is the implementing agency.
- (7) The enforcement agency shall commence daily performance tests on the applicable date specified in 40 CFR 63.300 (a) or (c).
- (8) The certified observer shall conduct each performance test according to the requirements in this paragraph:
  - (A) The certified observer shall conduct one run each day to observe and record visible emissions from each coke oven door (except for doors covered by an alternative standard under 40 CFR 63.305), topside port lid, and off take system on each coke oven battery. The certified observer also shall conduct five runs to observe and record the seconds of visible emissions per charge for five consecutive charges from each coke oven battery. The observer may perform additional runs as needed to obtain and record a visible emissions value (or set of values) for an emission point that is valid under Method 303 or Method 303A in appendix A 40 CFR Part 63. Observations from fewer than five consecutive charges shall constitute a valid set of charging observations only in accordance with the procedures and conditions specified in sections 3.8 and 3.9 of Method 303 in appendix A 40 CFR Part 63.
  - (B) If a valid visible emissions value (or set of values) is not obtained for a performance test, there is no compliance determination for that day. Compliance determinations will resume on the next day that a valid visible emissions value (or set of values) is obtained.
  - (C) After each performance test for a by-product coke oven battery, the certified observer shall check and record the collecting main pressure according to the procedures in section 6.3 of Method 303 in appendix A to 40 CFR Part 63.
    - (i) The Permittee shall demonstrate pursuant to Method 303 in appendix A to 40 CFR 63 the accuracy of the pressure measurement device upon request of the certified observer;
    - (ii) The Permittee shall not adjust the pressure to a level below the range of normal operation during or prior to the inspection;
  - (D) The certified observer shall monitor visible emissions from coke oven doors subject to an alternative standard under 40 CFR 63.305 on the schedule specified in 40 CFR 63.305(f).
  - (E) If applicable, the certified observer shall monitor the opacity of any emissions escaping the control device for a shed covering doors subject to an alternative standard under 40 CFR 63.305 on the schedule specified in 40 CFR 63.305(f).
  - (F) In no case shall the Permittee knowingly block a coke oven door, or any portion of a door for the purpose of concealing emissions or preventing observations by the certified observer.
- (9) Using the observations obtained from each performance test, the enforcement agency shall compute and record, in accordance with the procedures and

requirements of Method 303 or 303A in appendix A to 40 CFR Part 63, for each day of operations on which a valid emissions value (or set of values) is obtained:

- (A) The 30-run rolling average of the percent leaking coke oven doors, topside port lids, and off take systems on each coke oven battery, using the equations in sections 4.5.3.2, 5.6.5.2, and 5.6.6.2 of Method 303 (or section 3.4.3.2 of Method 303A) in appendix A to 40 CFR Part 63;
  - (B) For by-product coke oven battery charging operations, the logarithmic 30-day rolling average of the seconds of visible emissions per charge for each battery, using the equation in section 3.9 of Method 303 in appendix A to 40 CFR Part 63;
  - (C) For a battery subject to an alternative emission limitation for coke oven doors on by-product coke oven batteries pursuant to 40 CFR 63.305, the 30-run rolling average of the percent leaking coke oven doors for any side of the battery not subject to such alternative emission limitation;
  - (D) For a by-product coke oven battery subject to the small battery emission limitation for coke oven doors pursuant to 40 CFR 63.304(b)(7), the 30-run rolling average of the number of leaking coke oven doors;
  - (E) For an approved alternative emission limitation for coke oven doors according to 40 CFR 63.305, the weekly or monthly observation of the percent leaking coke oven doors using Method 303 in appendix A to 40 CFR Part 63, the percent opacity of visible emissions from the control device for the shed using Method 9 in appendix A to 40 CFR Part 60, and visible emissions from the shed using Method 22 in appendix A to 40 CFR Part 60.
- (10) The certified observer shall make available to the implementing agency as well as to The Permittee, a copy of the daily inspection results by the end of the day and shall make available the calculated rolling average for each emission point to The Permittee as soon as practicable following each performance test. The information provided by the certified observer is not a compliance determination. For the purpose of notifying an owner or operator of the results obtained by a certified observer, the person does not have to be certified.
- (11) Compliance shall not be determined more often than the schedule provided for performance tests under this section. If additional valid emissions observations are obtained (or in the case of charging, valid sets of emission observations), the arithmetic average of all valid values (or valid sets of values) obtained during the day shall be used in any computations performed to determine compliance under 40 CFR 63.309(d) or determinations under 40 CFR 63.306.
- (12) For a flare constructed to meet the requirements of 40 CFR 63.307(b):
- (A) Compliance with the provisions in 40 CFR 63.307(c) (visible emissions from flares) shall be determined using Method 22 in appendix A to 40 CFR Part 60, with an observation period of 2 hours; and
  - (B) Compliance with the provisions in 40 CFR 63.307(b)(4) (flare pilot light) shall be determined using a thermocouple or any other equivalent device.

- (13) No observations obtained during any program for training or for certifying observers under this subpart shall be used to determine compliance with the requirements of this subpart or any other federally enforceable standard.
- (b) The certified observer shall conduct each performance test according to 40 CFR 63.309(c).

D.2.12 National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching and Battery Stacks - Compliance Requirements for Coke Batteries [40 CFR 63.7310(a)][40 CFR 63.7324] [40 CFR 63.7326][40 CFR 63.7328][40 CFR 63.7332] [40 CFR Part 63.7333][40CFR 63.7334] [40CFR 63.7335]

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- (a) Pursuant to 40 CFR 63.7310(a), the Permittee shall be in compliance with the emission limitations and operation and maintenance requirements in Condition D.2.3 after a specified period of time, except during periods of start-up, shutdown and malfunction as defined in 40 CFR 63.2, which is incorporated by reference in 326 IAC 20-1-3.
- (b) Pursuant to 40 CFR 63.7326, the Permittee shall demonstrate initial compliance with the emission limitations that apply to the by-product coke batteries: No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, for the following:
  - (1) Particulate matter emission limit from a control device applied to pushing emissions; and
  - (2) Opacity limit for stacks.
  - (3) Total Dissolved Solids (TDS) limit or constituent limits for quench water.
- (c) Pursuant to 40 CFR 63.7327 and 63.7320(c), the Permittee shall demonstrate initial compliance with the work practice standards for by-product coke oven batteries with vertical flues that apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, for the following:
  - (1) Work practice standards for fugitive pushing emissions and
  - (2) Work practice standards for soaking.
  - (3) Work practice standards for quenching.
- (d) The Permittee shall demonstrate initial compliance with the operation and maintenance requirements that apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, in accordance with 40 CFR 63.7328 and 63.7320(c).
- (e) The Permittee shall monitor and collect data to demonstrate continuous compliance with 40 CFR Part 63, Subpart CCCCC, in accordance with 40 CFR 63.7332.
- (f) The Permittee shall demonstrate continuous compliance with the emissions limitations of 40 CFR Part 63, Subpart CCCCC, that apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and required capture and control equipment in accordance with 40 CFR 63.7333.
- (g) Pursuant to 40 CFR 63.7334, the Permittee shall demonstrate continuous compliance with work practice standards for by-product coke oven batteries with vertical flues, that apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, for the following:
  - (1) Work practice standards for fugitive pushing emissions, in accordance with 40 CFR 63.7334(a) and
  - (2) Work practice standards for soaking, in accordance with 40 CFR 63.7334(d).

- (3) Work practice standards for quenching, in accordance with 40 CFR 63.7334(e).
- (h) Pursuant to 40 CFR 63.7335, the Permittee shall demonstrate continuous compliance with the operation and maintenance requirements of 40 CFR Part 63, Subpart CCCCC that apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and required capture and control equipment.

D.2.13 National Emissions Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching and Battery Stacks -Testing Requirements [40 CFR 63.7320 through 63.7324]

- (a) The Permittee shall conduct performance tests and other initial compliance demonstrations that apply to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, in accordance with 40 CFR 63.7320 for the following:
  - (1) Each emission limit in 40 CFR 63.7290(a) for particulate matter from a control device applied to pushing emissions within 180 days of April 14, 2006.
  - (2) The TDS limit or constituent for quench water in 40 CFR 63.7295(a)(1) by April 14, 2006.
- (b) The Permittee shall conduct subsequent performance tests that apply to each control device subject to an emission limit for particulate matter in 40 CFR 63.7290(a) that is used at the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, in accordance with 40 CFR 63.7321.
- (c) The Permittee shall use the test methods and other procedures in 40 CFR 63.7322, when demonstrating compliance with the emission limits for particulate matter from the pushing control device for the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (d) The Permittee shall use the test methods and other procedures in 40 CFR 63.7323 to establish and demonstrate initial compliance with operating limits for the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and required capture and control equipment.
- (e) The Permittee shall use the test methods and other procedures in 40 CFR 63.7324 when demonstrating compliance with the opacity limits for the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.
- (f) The Permittee shall use the test methods and other procedures in 40 CFR 63.7325 to demonstrate initial compliance with the TDS or constituent limits for quench water for the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery.

D.2.14 Visible Emission Inspections for Charging [326 IAC 11-3-4(a)]

- (a) Pursuant to 326 IAC 11-3-4(a) and in order to demonstrate compliance with Condition D.2.6(c) and (d), the observations shall be made and the identity recorded from any point or points on the topside of a coke oven battery such that the observer can obtain an unobstructed view of the charging operation. The observer shall keep cumulative time of the total number of seconds charging emissions are visible. Time is started when a visible emission appears and is stopped when the visible emission expires. This procedure shall continue throughout the entire charging period. Visible emissions occurring simultaneously from two (2) or more separate points shall be timed as one (1).
- (b) Visible emissions shall not be timed from:
  - (1) Burning coal spilled on the top of the oven or oven lids during charging

- (2) Any equipment other than the charging system or charge ports.
  - (3) Standpipes during charging.
  - (4) Charge port lids and the standpipe on the oven most recently charged.
  - (5) Coke oven doors which may be wind-blown across the topside of a coke oven battery.
  - (6) Steam from uncombined water.
- (c) The time retained is the total time visible emissions are observed during a charge and shall be recorded on a data sheet. If the observations of a consecutive set of five (5) charges are interrupted by an event not in the control of the observer, for example momentary interference by a passing quench car plume, then the data for the interrupted charge(s) shall be discarded and additional consecutive charges shall be observed. Five (5) charges observed as such shall be treated as consecutive charges.
- (d) The observer shall discard the data for the charge observed, during each set, which contains the greatest cumulative total number of seconds during which emissions are visible. A set shall consist of the total number of consecutive charges read by the observer during any one (1) observation period, but in no event shall a set exceed twenty (20) consecutive charges.

D.2.15 Charge Port Lids and Off take Piping - Emissions Testing [326 IAC 11-3-4(b)]

Pursuant to 326 IAC 11-3-4(b) and in order to determine compliance with condition D.2.6(f), (g) and (h), the observer shall walk the length of the topside of a coke oven battery, on a line down the middle of the battery, or as close as safety permits, to record the identity of standpipes in a single traverse and charge port lids in a single traverse that have any visible emissions.

- (a) Visible emissions shall not be counted from:
- (1) Burning coal spilled on the top of the oven or oven lids.
  - (2) Charge port lids and standpipe lids, from a maximum of three (3) ovens that are opened during a decarbonization period or charging period.
  - (3) The standpipe on an oven being charged.
  - (4) Resulting from maintenance work.
  - (5) Steam caused by the vaporization of wet luting material.
  - (6) Steam from uncombined water.
- (b) Visible emissions from charge port lids shall include all emissions from the charge port casting/lid interface.
- (c) Visible emissions from the off take piping assembly shall include any leaks from the following:
- (1) Cracks and/or defects in the piping itself.
  - (2) Flanged joints of any pipes, including the final joint with the collector main.
  - (3) The standpipe base.



- (4) The standpipe lid or along its seal with the standpipe.
- (5) Off take piping assembly which is not contained in one (1) of the categories in this subdivision.

#### D.2.16 Visible Emissions for Oven Doors [326 IAC 11-3-4(c)]

- (a) Pursuant to 326 IAC 11-3-4(c) and in order to demonstrate compliance with Condition D.2.6 (a) and (b), an observer shall record the starting time of the inspection, then shall move steadily along the push-side or coke-side of a coke oven battery, stopping only to record the identity of any doors of ovens not temporarily or permanently taken out of service that have visible emissions, but not including visible emissions due to steam from uncombined water. The inspector shall have any of the following options:
  - (1) To wait for any doors which are blocked from the inspector's view to become unobstructed.
  - (2) To continue the inspection and return when the view of the doors becomes unobstructed.
  - (3) To exclude the obstructed doors from the calculation of the total number of doors observed.
- (b) The finishing time of that inspection shall be recorded followed by the inspector repeating the same procedure on the opposite side of the same battery. The inspector shall be positioned either outside of the quench car tracks on the coke-side of the battery or outside of the push-side bench. After a brief scan of a coke oven door, the observer shall proceed in the inspection checking each succeeding door in a like manner.

#### D.2.17 Visible Emissions Inspections for Gas Collector Main [326 IAC 11-3-4(e)]

Pursuant to 326 IAC 11-3-4(e) and in order to determine compliance with condition D.2.6(i) and (j), the observer shall walk the length of the topside of the gas collector main, to record the number of points in a single traverse from which emissions are visible.

#### D.2.18 Visible Emissions Inspections Pushing [326 IAC 6-1-10.2 (c)(3)]

- (a) Pursuant to 326 IAC 6-1-10.2 (c)(3) and in order to determine compliance with Condition D.2.5(e)(1)), the opacity of emissions from the coke-side of an oven to be pushed, before the first movement of the coke from the oven to the coke car begins shall be determined on an instantaneous basis at the top of the battery. The observer shall be positioned outside of the quench car rails.
- (b) Pursuant to 326 IAC 6-1-10.2 (c)(3) and in order to determine compliance with Condition D.2.5(e)(2), the opacity of emissions from the pushing operations (begin with the first movement of coke from the oven into the coke car and to end when the quench car enters the quench tower), shall be determined using 40 CFR 60, Appendix A, Method 9, except the readings shall be taken at fifteen (15) second intervals. Six (6) consecutive readings shall be averaged to determine the opacity. The observer shall only use those backgrounds that are above the elevation of the battery surface. If this condition cannot be met for six (6) consecutive readings, then the opacity shall be determined using the lesser number of consecutive readings.

#### D.2.19 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.2.4, the Permittee shall perform PM<sub>10</sub> testing on the No. 5 and 7 Coke Batteries Pushing Baghouse Stack CP6050, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be

repeated at least once every five (5) years from the date of the last valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

- (b) Within thirty (30) months after issuance of this permit or five (5) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.2.4, the Permittee shall perform PM<sub>10</sub> testing of the No. 2, No. 3, No.5 and No. 7 coke batteries underfire Stacks CP6040, CP6045, CP6049 and CP6053, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

#### D.2.20 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]

To demonstrate compliance with condition D.2.8, the Permittee shall perform the Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis in accordance with Section C - Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis of this permit.

#### D.2.21 Particulate Matter Control

- (a) To control particulate matter the mobile scrubber cars 2-9121 and 3-9122, and baghouse CP3041 shall be in operation at all times the coke batteries are in operation.
- (b) To control particulate matter and in order to comply with D.2.5, the baffles and treatment of process water in the Coke Plant Process Water Treatment Plant used in Nos. 1, 2, 3, 5 and 6 Coke Battery Quench Systems CP1Q0080, CP2Q0081, CP3Q0087, CP5Q0091 and CP6Q0095 shall be used at all times the Nos. 1, 2, 3, 5 and 6 Quench Systems are in operation.

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

#### D.2.22 Visible Emissions Notations

- (a) Visible emission notations of the No. 2 and No.3 Coke Oven Battery: gas cleaning cars 2-9121 and 3-9122 and the No. 5 and No. 7 Coke Oven Battery: pushing bag house stack CP6050 shall be performed once per shift 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

#### D.2.23 Parametric Monitoring

- (a) The Permittee shall record the total static pressure drop across the baghouse CP3041 used in conjunction with No. 5 and No. 7 coke oven batteries pushing operations at least

once per shift when pushing is occurring. When for any one reading, the pressure drop across each baghouse is outside the normal range of 3.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan Implementation, Records, and Reports, shall be considered a deviation of this permit.

- (b) The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

#### D.2.24 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags in the No. 5 and No. 7 Coke Battery pushing operation baghouse CP3041. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.2.25 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit. If operations continue after bag failure is observed and it will be 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 or replaced. 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.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately 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).

#### D.2.26 Continuous Opacity Monitoring (COM) [326 IAC 3-5]

Pursuant to 326 IAC 3-5, the continuous monitoring system shall be calibrated, maintained and operated to measure the opacity of the exhaust from the Nos. 2, 3, 5 and 7 Coke Battery underfiring stacks CP6040, CP6045, CP6049 and CP6053. The continuous opacity monitoring system shall be certified in accordance with and meet the performance specifications of 326 IAC 3-5-2.

#### D.2.27 Maintenance of Continuous Opacity Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment.

- (b) All continuous opacity monitoring systems shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.
- (c) In the event that a breakdown of a continuous opacity monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) Whenever a continuous opacity monitor (COM) is malfunctioning or will be down for calibration, maintenance, or repairs for a period of one (1) hour or more, compliance with the applicable opacity limits shall be demonstrated by the following:
  - (1) Visible emission (VE) notations shall be performed once per hour during daylight operations following the shutdown or malfunction of the primary COM. A trained employee shall record whether emissions are normal or abnormal for the state of operation of the emission unit at the time of the reading.
    - (A) 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.
    - (B) If abnormal emissions are noted during two consecutive emission notations, the Permittee shall begin Method 9 opacity observations within four hours of the second abnormal notation.
    - (C) VE notations may be discontinued once a COM is online or formal Method 9 readings have been implemented.
  - (2) If a COM is not online within twenty-four (24) hours of shutdown or malfunction of the primary COM, the Permittee shall provide certified opacity reader(s), who may be employees of the Permittee or independent contractors, to self-monitor the emissions from the emission unit stack.
    - (A) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.
    - (B) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least once every four (4) hours during daylight operations, until such time that a COM is in operation.
    - (C) Method 9 readings may be discontinued once a COM is online.
    - (D) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.
  - (3) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports. Observation of abnormal emissions that do not violate an applicable opacity limit is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5, (and 40 CFR 63).

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

#### **D.2.28 National Emission Standards for Hazardous Air Pollutants from Coke Oven Batteries -Record Keeping and Reporting Requirements [402 CFR 63.311][326 IAC 20]**

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- (a) To document compliance with Condition D.2.2, the Permittee shall maintain the following records:
  - (1) A copy of the work practice plan for each emission point, any revisions and the following:
    - (A) All audiovisual and written training materials,
    - (B) Dates of each training class,.
    - (C) Names of participants in each class; and
    - (D) Documentation that all appropriate personnel have successfully completed the training required in condition D.2.2(b)(4)(A).
  - (2) Records required to be maintained by the work practice plan provisions implemented under 40 CFR 63.306 (b)(7);
  - (3) Records resulting from audits of the effectiveness of the work practice plan for the particular emission point;
  - (4) Records of the inventory of coke oven doors and jambs;
  - (5) The design drawings and engineering specifications for the bypass/bleeder stack flare system; and
  - (6) Records specified in 40 CFR Part 63.311(f) regarding the basis of each malfunction.
- (b) A semiannual compliance certification to document compliance with Condition D.2.2 shall include the following:
  - (1) No coke oven gas was vented except through the bypass/bleeder stack flare system of the by-product coke battery during the reporting period, or
  - (2) A venting of coke oven gas that was not through the bypass/bleeder stack flare system was reported within 24 hours, and a written report was submitted within thirty (30) days.
  - (3) A startup, shutdown or malfunction did not occur during the reporting period, or
  - (4) A startup, shutdown or malfunction did occur and date report was reported and submitted within fourteen (14) days.

D.2.29 National Emissions Standards for Hazardous Air Pollutants from Coke Ovens: Pushing, Quenching and Battery Stacks- Record Keeping Requirements [40 CFR 63.7310(b)][40 CFR 63.7][326 IAC 20]

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- (a) The Permittee shall maintain a log detailing the operation and maintenance of the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery and control equipment, in accordance with 40 CFR 63.7310(b).
- (b) The Permittee shall keep the records required by 40 CFR 63.7342(a).
- (c) If a Continuous Opacity Monitoring System (COMS) is used to comply with an opacity standard, the Permittee shall keep the records specified in 40 CFR 63.7342(b).
- (d) The Permittee shall keep the records required in 40 CFR 63.6(h)(6) for visible observations in accordance with 40 CFR 63.7342(c).
- (e) Pursuant to 40 CFR 63.7333 and 63.7342 (d), the Permittee shall keep the records required to demonstrate continuous compliance with each emission limitation requirement for each by-product coke battery that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, for the following:
  - (1) Each control device and capture system applied to pushing emissions; and
  - (2) Opacity limits for stacks.
  - (3) TDS limit for quenching; and
  - (4) Constituent limit for quenching.
- (f) Pursuant to 40 CFR 63.7334 and 63.7342(d), the Permittee shall keep the records to demonstrate continuous compliance with the work practice standards for each by-product Coke Battery with vertical flues that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, as follows:
  - (1) Work practice standards for fugitive pushing emissions, in accordance with 40 CFR 63.7334(a) and
  - (2) Work practice standards for soaking, in accordance with 40 CFR 63.7334(d).
  - (3) Work practice standards for quenching in accordance with 40 CFR 63.7334(e).
- (g) Pursuant to 40 CFR 63.7335 and 63.7342 (d), the Permittee shall keep the records required to show continuous compliance with each operation and maintenance requirement that applies to the No. 2 Coke Battery, No. 3 Coke Battery, No. 5 Coke Battery and No. 7 Coke Battery, for the following:
  - (1) The operation and maintenance plan requirements;
  - (2) Capture systems or control devices applied to pushing emissions;
  - (3) Baghouses applied to pushing emissions; and
  - (4) The requirements to maintain a current copy of the operation and maintenance plan.
- (h) The Permittee shall keep the records required by 40 CFR Part 63, Subpart CCCCC in accordance with 40 CFR 63.7343 and the General Record Keeping Requirements in Section C of this permit.

#### D.2.30 Record Keeping Requirements

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- (a) To document compliance with Condition D.2.26, the Permittee shall maintain records of the continuous opacity monitoring (COM) data in accordance with 326 IAC 3-5. Records shall be complete and sufficient to establish compliance with the limits established in this section. When the COM system is not functioning, the Permittee shall maintain records sufficient to demonstrate compliance D.2.26.
- (b) To document compliance with Condition D.2.8, the Permittee shall maintain records in accordance with Section C- Sulfur Dioxide (SO<sub>2</sub>) Record Keeping Requirements (Entire Source).
- (c) To document compliance with Condition D.2.9, the Permittee shall maintain records of the natural gas usage for 12 month consecutive periods, with compliance demonstrated at the end of each month.
- (d) To document compliance with Condition D.2.22, the Permittee shall maintain records of the once per shift visible emissions notations of the stack exhausts.
- (e) To document compliance with Condition D.2.23, the Permittee shall maintain the records of the total static pressure drop during normal operation.
- (f) To document compliance with Conditions D.2.24, the Permittee shall maintain records of the results of the inspections.
- (g) To document compliance with Condition D.2.5(h), the Permittee shall maintain the following:
  - (1) Maintain records of the source and proportions of clean (Lake Michigan, process and miscellaneous sources of non-process) water used in the Nos. 1, 2, 3, 5 and 6 Coke Battery Quench Systems.
  - (2) Maintain records of the Coke Plant Water Treatment Plant downtime.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.31 National Emissions Standards for Hazardous Air Pollutants from Coke Ovens: Pushing Quenching and Battery Stacks - Reporting Requirements for Coke Oven Batteries [40 CFR 63.7336] [40 CFR 63.7341][326 IAC 20]

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- (a) The Permittee shall report each deviation in the Quarterly Deviation and Compliance Monitoring Report required by the Section C of this permit in accordance with 40 CFR 63.7336(a), 40 CFR 63.7341(e), 326 IAC 2-1.1-11 and 326 IAC 2-7-5(3).
- (b) The Permittee shall submit the notifications required by 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and 40 CFR 63.9(b) through (h) that apply by the dates specified in those sections in accordance with 40 CFR 63.7340(a).
- (c) The Permittee shall submit a notification of compliance status in accordance with 40 CFR 63.9(h)(2)(ii) and 40 CFR 63.7340(e).
  - (1) For each initial compliance demonstration that does not include a performance test, the Permittee shall submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.
  - (2) For each initial compliance demonstration that does include a performance test, the Permittee shall submit the notification of compliance status, including the

performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).

- (d) The notification of compliance status shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The notification of compliance status requires the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (e) The Permittee shall submit quarterly compliance reports and semiannual compliance reports in accordance with 40 CFR Part 63.7341(a) through (c).
- (f) If a start-up, shutdown or malfunction occurred during the semiannual reporting period that was not consistent with the start-up, shutdown or malfunction plan, the Permittee shall submit an immediate start-up, shutdown and malfunction report according to the requirements in 40 CFR Part 63.10(d)(5)(ii) and 40 CFR Part 63.7341(d).

#### D.2.32 Reporting Requirements

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- (a) A quarterly report of opacity exceedances 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.
- (b) A quarterly summary report to document compliance with condition D.2.8 shall be submitted to IDEM accordance with Section C – Sulfur Dioxide SO<sub>2</sub> Reporting Requirements (Entire Source).
- (c) A quarterly summary of the information to document compliance with Condition D.2.9, shall be submitted in accordance with Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, within thirty (30) days after the end of the quarter being reported.
- (d) The reports submitted by the Permittee do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

#### D.2.33 Requirements to Submit a Significant Permit Modification Application [326 IAC 2-7-12] [326 IAC 2-7-5]

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The Permittee shall submit an application for a significant permit modification to IDEM, OAQ to include information from the notification of compliance status in the Part 70 permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR Part 63, Subpart CCCCC, a description of the affected source and activities subject to the standard, and a description of how the Permittee will meet the applicable requirements of the standard.
- (b) The significant permit modification application shall be submitted no later than July 14, 2005.
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality



100 North Senate Avenue  
Indianapolis, Indiana 46204

### SECTION D.3

### FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:** One (1) Coke Plant By-Product Recovery Plant

(a) Recovery No.1 Suction Control System

- (1) Four (4) Predecanters D-101A, D-101B, D-101C and D-101D, identified as CBP10100, CBP20101, CBP30102 and CBP30103, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72- inch Suction Main.
- (2) Two (2) Still Decanters D-102B and D-102A, identified as CBD00104 and CBD00105, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (3) Two (2) Gary Decanters D-5 and D-4, identified as CBD20107 and CBD30108, constructed in 1991, with VOC emission vapors directed by a natural gas blanket system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (4) One (1) Bleed-Off Tank, identified as CBB10106, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (5) One (1) Liquor Storage Tank T-7, identified as CBL10109, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 into the 72-inch Suction Main.
- (6) Two (2) Tar Storage Tanks T-2 and T-3, identified as CBT00110 and CBT00111, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (7) One (1) Storage Tank T-6, identified as CBT20112, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (8) Two (2) PC Tar Storage Tanks T-363D and T-363A, identified as CBT30113 and CB40114, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 into the 72-inch Suction Main.
- (9) One (1) Dry Tar Storage Tank T-9, identified as CBT50115, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (10) One (1) Sump S-9 serving Dry Tar Storage Tank ST-9, identified as CBS10116, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.

(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)]: One (1) Coke By-Product Recovery Plant (continued)**

(b) Recovery No. 2 Suction Control System

- (1) Three (3) Tar Tanks T-304C, T-304B and T-304A , identified as CBT60118, CBT70119, and CBT80121, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No.2 and into the 72-inch Suction Main.
- (2) One (1) Tar Feed Tank T-306C, identified as CBTF0164, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No.2 and into the 72-inch Suction Main.
- (3) One (1) Wash Oil Tank T-331AN, identified as CBO10123, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 into the 72-inch Suction Main.
- (4) Two (2) Light Oil Storage Tanks T-312 and T-311, identified as CBO20124 and CBO30125, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 and into the 72-inch Suction Main.
- (5) One (1) sump S-304/306, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 and into the 72-inch Suction Main.

(c) No. 3 Suction Control System

- (1) Four (4) Predecanters D-105A, D-105B, D-105C and D-105D, identified as CBP70137, CBP80138, CBP50139 and CBP60140, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (2) Two (2) Still Decanters D-106A and D-106B, identified as CBD60134 and CBD70136, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (3) Two (2) Gary Decanters D-6 and D-7, identified as CBD40132 and CBD50133, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (4) Two (2) Tar Decanters D-5/7N and D-5/7S, identified as CBD80141 and CBD90142, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (5) One (1) Bleed-Off Tank B-104, identified as CBB20135, constructed in 1991 with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (6) One (1) Liquor Surge Tank T-11, identified as CBL60131, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.

(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)]: One (1) Coke Plant By-Product Recovery Plant (continued):**

(d) No. 4 Suction Control System

- (1) Four (4) Circulating Liquor Decanters L-100B, L-100C, L-100D and L-100E, identified as CBC30127, CBC40128, CBC50129 and CBL80145, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
- (2) Two (2) Liquor Surge Tanks T-340A and T-340B, identified as CBC20126 and CBL70143, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
- (3) One (1) Primary Cooler Tank T-345A, identified as CBTF0130, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.

(e) No. 5 Suction Control System

- (1) One (1) Sump of Circulating Liquor Ls-100E, identified as CBS40144, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (2) Three (3) Tar Storage Tanks T-301, T-302A, T-302B, identified as CBTA0146, CBTB0147 and CBTC0148, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (3) Two (2) Storage Tanks T-7100, T7110 and T-7120, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (4) Two (2) Oil Tar Separator Tanks, T-7000 and T-7010, constructed in 1999, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (5) Two (2) Oil Tar Separator Tanks, T-7020 and T-7030, constructed in 1999, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
- (6) One (1) Surge Tank T-7800, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.

(f) Distillation Sump Emission Control

One (1) Distillation Sump Emission Control System, identified as CBS80151, constructed in 1991, uses a nitrogen gas blanketing system to control fugitive VOC emission vapors

- (g) Coke Oven Gas (COG) High Pressure Control System, constructed in 1991, contains instrumentation and control valves designed to limit the maximum pressure in the COG distribution system. Excess COG pressure is directed to and combusted in a bleeder flare with emissions exhausting to Stack CG6077.

(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)]:** One (1) Coke Plant By-Product Recovery Plant (continued):

- (h) Equipment in Benzene Service consists of several hundred components: pumps, exhausters, valves, flanges and pressure relief devices in light oil service within the byproducts plant.

(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 General Provisions Relating to Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 14] [40 CFR Part 61 Subpart A]**

The provisions of 40 CFR Part 61, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 14, apply to the facilities described in this section except when otherwise specified in 40 CFR Part 61, Subpart L, 40 CFR Part 61, Subpart V, and 40 CFR Part 61, Subpart FF.

**D.3.2 National Emission Standard for Hazardous Air Pollutants (NESHAP)-Benzene Limitations from Coke Byproduct Recovery Plants [40 CFR 61 Subpart L] [326 IAC 14]**

(a) Pursuant to 40 CFR 61.132, the Permittee shall:

- (1) Enclose and seal all openings on each process vessel, tar storage tank, and tar-intercepting sump.
- (2) Duct gases from each process vessel, tar storage tank, and tar-intercepting sump to the gas collection system, gas distribution system, or other enclosed point in the by-product recovery process where the benzene in the gas will be recovered or destroyed. This control system shall be designed and operated for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined by the methods specified in 40 CFR 61.245(c). This system can be designed as a closed, positive pressure, gas blanketing system.
  - (A) The Permittee may elect to install, operate, and maintain a pressure relief device, vacuum relief device, an access hatch, and a sampling port on each process vessel, tar storage tank, and tar-intercepting sump. Each access hatch and sampling port must be equipped with a gasket and a cover, seal, or lid that must be kept in a closed position at all times, unless in actual use.
  - (B) The Permittee may elect to leave open to the atmosphere the portion of the liquid surface in each tar decanter necessary to permit operation of a sludge conveyor. If the Permittee elects to maintain an opening on part of the liquid surface of the tar decanter, the Permittee shall install, operate, and maintain a water leg seal on the tar decanter roof near the sludge discharge chute to ensure enclosure of the major portion of liquid surface not necessary for the operation of the sludge conveyor.
- (3) Monitor the connections and seals on each control system to determine if it is operating with no detectable emissions, using Method 21 (40 CFR part 60, appendix A) and procedures specified in 40 CFR 61.245(c), and shall visually inspect each source (including sealing materials) and the ductwork of the control system for evidence of visible defects such as gaps or tears. This monitoring and inspection shall be conducted on a semiannual basis and at any other time after the control system is repressurized with blanketing gas following removal of the cover or opening of the access hatch.

- (A) If an instrument reading indicates an organic chemical concentration more than 500 ppm above a background concentration, as measured by Method 21, a leak is detected.
  - (B) If visible defects such as gaps in sealing materials are observed during a visual inspection, a leak is detected.
  - (C) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
  - (D) A first attempt at repair of any leak or visible defect shall be made no later than 5 calendar days after each leak is detected.
- (4) Conduct a maintenance inspection of the control system following the installation of control equipment used to meet the requirements of 40 CFR 61.132(a) on an annual basis for evidence of system abnormalities, such as blocked or plugged lines, sticking valves, plugged condensate traps, and other maintenance defects that could result in abnormal system operation. The Permittee shall make a first attempt at repair within 5 days, with repair within 15 days of detection.
- (5) Comply with the requirements of 40 CFR 61.132(a) through (c) for each benzene storage tank, BTX storage tank, light-oil storage tank, and excess ammonia liquor storage tank.
- (b) Pursuant to 40 CFR 61.133 and 326 IAC 14-9, the Permittee of a light oil sump shall
- (1) Enclose and seal the liquid surface in the sump to form a closed system to contain the emissions.
  - (2) The Permittee may elect to install, operate, and maintain a vent on the light-oil sump cover. Each vent pipe must be equipped with a water leg seal, a pressure relief device, or vacuum relief device.
  - (3) The Permittee may elect to install, operate, and maintain an access hatch on each light-oil sump cover. Each access hatch must be equipped with a gasket and a cover, seal or lid that must be kept in a closed position at all times, unless in actual use.
  - (4) Replace the light-oil sump cover when removed for periodic maintenance with a seal at completion of the maintenance operation.
  - (5) Not vent steam or other gases from the by-product process to the light-oil sump.
  - (6) Monitor semiannually the connections and seals on each control system following the installation of control equipment to meet the requirements of 40 CFR 61.132(a) to determine if it is operating with no detectable emissions, using 40 CFR Part 60, Appendix A, Method 21, and the procedures specified in 40 CFR Part 61, Subpart V, Section 61.245(c) and 326 IAC 14-8-3(b). The Permittee also shall conduct on a semiannual basis a visual inspection of each source including sealing materials for evidence of visible defects such as gaps or tears.
- (A) If an instrument reading indicates an organic chemical concentration of more than 500 ppm above a background concentration, as measured by 40 CFR Part 60, Appendix A, Method 21, a leak is detected.

- (B) If visible defects such as gaps in sealing materials are observed during visual inspection, a leak is detected.
  - (C) A first attempt at repair of any leak or visible defect shall be made no later than five (5) calendar days after each leak is detected.
  - (D) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected.
- (c) Pursuant to 40 CFR 61.134, the Permittee of naphthalene processing, final coolers, and final-cooler cooling towers shall allow “zero” emissions from these facilities.
- (d) Pursuant to 40 CFR 61.135 and 326 IAC 14-9-5, each Permittee of equipment in benzene service shall comply with the requirements of 40 CFR 61, Subpart V and 326 IAC 14-9-5, except as provided in 40 CFR 61.135.
  - (1) The provisions of 40 CFR 61, Subpart V, Sections 61.242-3 and 61.242-9, do not apply to 40 CFR 61.135 and 326 IAC 14-9-5.
  - (2) Each piece of equipment in benzene service to which 40 CFR 61.135 and 326 IAC 14-9-5 apply, shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.
  - (3) Each exhauster shall be monitored quarterly to detect leaks by the methods specified in 40 CFR 61, Subpart V, Section 61.245(b) and 326 IAC 14-8-3(a), except as provided in subsections 40 CFR 61.135 (e) through (g) , 326 IAC 14-9-5 (e), (f) and (g) and in 326 IAC 14-9-6(c).
    - (A) If an instrument reading of ten thousand (10,000) ppm or greater is measured, a leak is detected.
    - (B) When a leak is detected, it shall be repaired as soon as practicable, but no later than fifteen (15) calendar days after it is detected, except as provided in 40 CFR 61, Subpart V, Section 61.242-10(a) and (b). A first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.
  - (4) Each exhauster equipped with a seal system that includes a barrier fluid system and that prevents leakage of process fluids to the atmosphere is exempt from the requirements of subsection 40 CFR 61.135 (d) and 326 IAC 14-9-5 (d) provided the following requirements are met:
    - (A) Each exhauster seal system is:
      - (i) operated with the barrier fluid at a pressure that is greater than the exhauster stuffing box pressure; or
      - (ii) equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR 61, Subpart V, Section 61.242-11; or
      - (iii) equipped with a system that purges the barrier fluid into a process stream with zero (0) benzene emissions to the atmosphere.
    - (B) The barrier fluid is not in benzene service.

- (C) Each barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.
  - (D) Each sensor as described in 40 CFR 61.135(e)(3) shall be checked daily or shall be equipped with an audible alarm.
  - (E) The Permittee shall determine, based on design consideration and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.
  - (F) If the sensor indicates failure of the seal system, the barrier system, or on the criterion determined under subsection 40 CFR 61.135(e)(5) of this section, a leak is detected.
  - (G) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in 40 CFR 61, Subpart V, Section 61.242-10.
  - (H) A first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.
- (5) An exhauster is exempt from the requirements of subsection 40 CFR 61.135(d) of this section if it is equipped with a closed vent system capable of capturing and transporting any leakage from the seals to a control device that complies with the requirements of 40 CFR 61, Subpart V, Section 61.242-11 except as provided in subsection 40 CFR 61.135 (g) of this section.
  - (6) Any exhauster that is designated, as described in 40 CFR 61, Subpart V, Section 61.246(e) and in 326 IAC 14-8-4(d), (e), (f), and (g) for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsection 40 CFR 61.135(d) of this section;
    - (A) The exhauster is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 CFR 61, Subpart V, Section 61.245(c) and in 326 IAC 14-8-3(b); and
    - (B) The exhauster is tested for compliance with 40 CFR 61.135(g)(1) initially upon designation, annually, and at other times requested by the commissioner.
  - (7) Any exhauster that is in vacuum service is excluded from the requirements of 40 CFR 61, Subpart L and 326 IAC 14-9-5, if it is identified as required in 40 CFR 61, Subpart V, Section 61.246(e)(5) and 326 IAC 14-8-4(d).

**D.3.3 National Emission Standard for Hazardous Air Pollutants (NESHAP) - Coke Byproduct Recovery Plants Equipment Leaks [326 IAC 14] [40 CFR 61 Subpart V]**

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Pursuant to 40 CFR 61 Subpart V, and 326 IAC 14, the Permittee shall control the HAPs emitted from equipment leaks in accordance with 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emission Sources), Sections 61.242 through 61.247. The provisions apply to equipment in benzene service at the coke byproducts plant.

- (a) Pursuant to 40 CFR 61.242-1(d), each piece of equipment to subject to the requirements of 40 CFR 61 Subpart V shall be marked in such a manner that it can be distinguished readily from other pieces of equipment.



- (b) Pursuant to 40 CFR 61.242-4 (Standards: Pressure relief devices in gas/vapor service), the standards listed below apply to pressure relief devices in gas/vapor service:
- (1) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c).
  - (2) The following requirements apply regarding pressure releases:
    - (A) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 61.242-10 and,
    - (B) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the method in 40 CFR 61.245(c).
  - (3) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 CFR 61.242-11 is exempt from the requirements of 40 CFR 61.242-4 (b)(1) and (2).
  - (4) The following applies regarding pressure release devices with rupture disks:
    - (A) Any pressure relief device that is equipped with a rupture disk upstream of a pressure relief device is exempted from the requirement of 40 CFR 61.242-4 (a) and (b) provided the Permittee complies with the requirements in 40 CFR 61.242-4(d)(2).
    - (B) A new rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 61.242-10.
- (c) Pursuant to 40 CFR 61.242-5 (Standards: Sampling connecting systems), the standards listed below apply to sampling connecting systems:
- (1) Each sampling connection system shall be equipped with a closed-purge system or closed vent system.
  - (2) Each closed-purge system or closed-vent system as required in paragraph D.3.3(c)(1) shall return the purged process fluid to the process line with zero VHAP emissions to atmosphere.
- (d) Pursuant to 40 CFR 61.242-6 (Standards: Open-ended valves or lines), the standards listed below apply to open-ended valves or lines:
- (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in paragraph (d)(4) of this condition.
  - (2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.

- (3) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
- (4) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (d)(1) of this condition at all other times.
- (e) Pursuant to 40 CFR 61.242-9 (Standards: Product accumulator vessels), each product accumulator vessel shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel to the activated carbon canister system.
- (f) Pursuant to 40 CFR 61.242-11 (Standards: Closed-vent systems and control devices), the Permittee shall comply with the provisions of this paragraph for the closed-vent system and activated carbon canister system:
  - (1) The activated carbon canister system shall be designed and operated to recover the organic vapors vented to them with an efficiency of 95 percent or greater.
  - (2) Closed-vent systems shall be designed for and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background and by visual inspections, as determined by the methods specified in 40 CFR 61.245(c).
  - (3) The closed-vent system and activated carbon canister system shall be operated at all times when emissions may be vented to them.

D.3.4 National Emission Standard for Hazardous Air Pollutants (NESHAP) - Benzene Waste Operations [40 CFR Part 61, Subpart FF] [326 IAC 14]

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Pursuant to 40 CFR 61.342(a), the Permittee of a facility at which the total annual benzene quantity from facility waste is less than 10 megagrams per year (Mg/yr) (11 ton/yr) shall be exempt from the requirements of 40 CFR 61.342(b) and (c).

- (a) The total annual benzene quantity from facility waste is the sum of the annual benzene quantity for each waste stream at the facility that has a flow-weighted annual average water content greater than 10 percent or that is mixed with water, or other wastes, at any time and the mixture has an annual average water content greater than 10 percent.
- (b) The benzene quantity in a waste stream is to be counted only once without multiple counting if other waste streams are mixed with or generated from the original waste stream.
- (c) Wastes that are exempted from control under 40 CFR 61.342(c)(2) and 61.342(c)(3) are included in the calculation of the total annual benzene quantity if they have an annual average water content greater than 10 percent, or if they are mixed with water or other wastes at any time and the mixture has an annual average water content greater than 10 percent.
- (d) The benzene in a material subject to this subpart that is sold is included in the calculation of the total annual benzene quantity if the material has an annual average water content greater than 10 percent.
- (e) Benzene in wastes generated by remediation activities conducted at the facility, such as the excavation of contaminated soil, pumping and treatment of groundwater and the recovery of product from soil or groundwater, are not included in the calculation of total annual benzene quantity for that facility.

- (f) The total annual benzene quantity is determined based upon the quantity of benzene in the waste before any waste treatment occurs to remove the benzene except as specified in 40 CFR 61.355(c)(1)(i) (A) through (C).

**D.3.5 Particulate Emissions Limitations [326 IAC 6-1-2(a)]**

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Pursuant to 326 IAC 6-1-2(a), the Permittee shall not allow or permit discharge to the atmosphere any gases which contain particulate matter in excess of 0.03 grain per dry standard cubic foot (dscf) from the Coke Oven Gas High Pressure Control System Stack CG6077.

**D.3.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventative Maintenance Plan of this permit is required for these facilities and any associated control devices.

**Compliance Determination Requirements**

**D.3.7 National Emission Standards for Hazardous Air Pollutants (NESHAP) - Coke By-product Recovery Plant: Benzene Compliance Requirements [40 CFR 61, Subpart L][ 326 IAC 14]**

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Pursuant to 40 CFR 61.136(b), the Permittee shall do the following to determine compliance:

- (a) The Permittee shall review records, performance test results, inspections or any combination thereof, using the methods and procedures specified in 40 CFR 60.137.
- (b) The Permittee subject to the provisions of 40 CFR 61 Subpart L shall comply with the requirements in 40 CFR 61.245 of 40 CFR 61, Subpart V.
- (c) To determine whether or not a piece of equipment is in benzene service, the methods in 40 CFR 61.245(d) shall be used, except that, for exhausters, the percent benzene shall be 1 percent by weight rather than the ten percent by weight described in 40 CFR 61.245(d).

**D.3.8 National Emission Standards for Hazardous Air Pollutants (NESHAP) - Coke By-product Recovery Plant: Monitoring Procedures for Equipment Leaks [40 CFR 61, Subpart V] [326 IAC 14]**

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Pursuant to 40 CFR 61, Subpart V, the Permittee must conduct monitoring in accordance with the paragraphs listed below to comply with leak detection requirements:

- (a) Pursuant to 40 CFR 61.242-2, the following standards apply to pumps:
- (1) Each pump shall be monitored monthly to detect leaks by the methods specified in 40 CFR 61.245(b).
  - (2) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
  - (3) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - (4) If there are indications of liquids dripping from the pump seal, a leak is detected.
  - (5) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after each leak is detected, except as provided in 40 CFR 61.242-10 and paragraph (e) of this condition.
  - (6) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

- (b) Pursuant to 40 CFR 61.242-4(b)(2), no later than 5 calendar days after a pressure release, the pressure relief device in gas/vapor service shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in 40 CFR 61.245(c).
- (c) Pursuant to 40 CFR 61.242-7, the standards listed below apply to valves:
  - (1) Each valve shall be monitored monthly to detect leaks by the method specified in 40 CFR 61.245(b).
  - (2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - (3) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.
  - (4) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.
  - (5) When a leak is detected it shall be repaired as soon as practicable, but not later than 15 calendar days after the leak is detected, except as provided in 40 CFR 61.242-10 and paragraph (e) of this condition.
  - (6) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
  - (7) First attempts at repair include, but are not limited to, the following best practices where practicable:
    - (A) Tightening of bonnet bolts;
    - (B) Replacement of bonnet bolts;
    - (C) Tightening of packing gland nuts; and,
    - (D) Injection of lubricant into lubricated packing.
- (d) Pursuant to 40 CFR 61.242-8, pressure relief devices in liquid service and flanges and other connectors shall be monitored within 5 days by the method specified in 40 CFR 61.245(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.
  - (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - (2) When a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 61.242-10 and paragraph (e) of this condition.
  - (3) The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
  - (4) First attempts at repair include, but are not limited to, the best practices described under 40 CFR 61.242-7(e) and paragraph (c)(7) of this condition.

- (e) Pursuant to 40 CFR 61.242-10 (Standards: Delay of Repair), the standards listed below apply to delay of repair of equipment:
  - (1) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown.
  - (2) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the process that does not remain in benzene service.
  - (3) Delay of repair for valves will be allowed if:
    - (A) The Permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair; and,
    - (B) When repair procedures are affected, the purged material is collected and destroyed or recovered in the activated carbon canister system.
  - (4) Delay of repair for pumps will be allowed if:
    - (A) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system; and
    - (B) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
  - (5) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
- (f) Pursuant to 40 CFR 61.242-11(e), the Permittee shall monitor the activated carbon canister system to ensure that it is operated and maintained in conformance with its design.
- (g) Pursuant to 40 CFR 61.242-11(f), the monitoring requirements listed below apply to the closed-vent system.
  - (1) Closed-vent systems shall be monitored to determine compliance with 40 CFR 61.242-11 initially in accordance with 40 CFR 61.05, annually, and at other times requested by the US EPA or IDEM, OAQ.
  - (2) Leaks, as indicated by an instrument reading greater than 500 ppm and visual inspections, shall be repaired as soon as practicable, but not later than 15 calendar days after the leak is detected.
  - (3) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

D.3.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) - Coke By-product Recovery Plant Leak Detection Testing Requirements [40 CFR 61, Subpart V] [326 IAC 14]

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- (a) When equipment is tested for compliance with or monitored for no detectable emissions in accordance with the standard for pressure relief devices in 40 CFR 61.242-4 and

closed-vent system in 40 CFR 61.242-11, the Permittee shall comply with the following requirements:

- (1) Reference Method 21 of Appendix A of 40 CFR part 60 procedures and performance criteria shall be used to
    - (A) Meet the detection instrument calibration
    - (B) Instrument shall be calibrated before use on each day of its use;
    - (C) Calibration gases shall be;
      - (i) Zero air (less than 10 ppm of hydrocarbon in air); and
      - (ii) A mixture of methane or – hexane and air at a concentration of approximately, but less than 10,000 ppm methane or n-hexane.
    - (D) The instrument probe shall be traversed around all potential leak interfacings.
  - (2) Each piece of equipment within a process unit that can conceivably contain equipment in VHAP service is presumed to be in VHAP service if the percent VHAP content exceeds ten (10) percent by weight.
  - (3) Samples used to determine the percent VHAP content shall be representative of the process fluid that is contained in or contacts the equipment or the gas being combusted in the flare.
  - (4) Method 22 of appendix 40 CFR 60 shall be used to determine compliance of flares with the visible emissions provisions of this subpart.
  - (5) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect a flame.
- (b) Pursuant to 40 CFR 61.242-1(b), compliance with 40 CFR 61, Subpart V, will be determined by a review of records, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 61.245.

**D.3.10 National Emission Standards for Hazardous Air Pollutants (NESHAP)- Benzene Waste Operations Methods, Procedures and Compliance [40 CFR 61, Subpart FF] [326 IAC 14]**

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Pursuant to 40 CFR 61.355, the Permittee shall determine the total annual benzene quantity from facility waste by the following procedure:

- (a) For each waste stream subject to this subpart with a flow-weighted annual average water content greater than 10 percent water, on a volume basis as total water, or is mixed with water or other wastes at any time and the resulting mixture has an annual average water content greater than 10 percent as specified in 40 CFR 61.342(a), the Permittee shall:
  - (1) Determine the annual waste quantity for each waste stream using the procedures specified in 40 CFR 61.355.
  - (2) Determine the flow-weighted annual average benzene concentration for each waste stream using the procedures specified in 40 CFR 61.355.

- (3) Calculate the annual benzene quantity for each waste stream by multiplying the annual waste quantity of the waste stream times the flow-weighted annual average benzene concentration.
- (b) Total annual benzene quantity from facility waste is calculated by adding together the annual benzene quantity for each waste stream generated during the year and the annual benzene quantity for each process unit turnaround waste annualized according to 40 CFR 61.355.
- (c) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr (11 ton/yr), then the Permittee shall comply with the requirements of 40 CFR 61.342 (c), (d), or (e).
- (d) If the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 ton/yr) but is equal to or greater than 1 Mg/yr (1.1ton/yr), then the Permittee shall:
  - (1) Comply with the record keeping requirements of 40 CFR 61.356 and reporting requirements of 40 CFR 61.357 of this subpart; and
  - (2) Repeat the determination of total annual benzene quantity from facility waste at least once per year and whenever there is a change in the process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr (11 ton/yr) or more.
- (e) The determination of annual waste quantity for wastes at coke by-product plants subject to and complying with the control requirements of 40 CFR 61.132, 61.133, 61.134, or 61.139 of Subpart L shall be made at the location that the waste stream exits the process unit component or waste management unit controlled by that subpart or at the exit of the ammonia still, provided that the following conditions are met:
  - (1) The transfer of wastes between units complying with the control requirements of 40 CFR 61 Subpart L, process units, and the ammonia still is made through hard piping or other enclosed system.
  - (2) The ammonia still meets the definition of a sour water stripper in 40 CFR 61.341.
- (f) Pursuant to 40 CFR 61.355(b), the calculation required to determine the total annual benzene quantity from facility waste shall be determined by one of the following methods
  - (1) Select the highest annual quantity of waste managed from historical records representing the most recent 5 years of operation or, if the facility has been in service for less than 5 years but at least 1 year, from historical records representing the total operating life of the facility;
  - (2) Use the maximum design capacity of the waste management unit; or
  - (3) Use measurements that are representative of maximum waste generation rates.
- (g) Pursuant to 40 CFR 61.342(g), compliance with 40 CFR 61, Subpart FF will be determined by review of facility records and using methods and procedures specified in 40 CFR 61.355.

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19][40 CFR 61]**

**D.3.11 National Emission Standards for Hazardous Air Pollutants (NESHAP) - Coke By-product Recovery Plant –Benzene Record Keeping Requirements [40 CFR 61 Subpart L] [326 IAC 14]**

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Pursuant to 40 CFR 61.138, the Permittee shall comply with the following record keeping requirements:

- (a) The following information pertaining to the design of control equipment constructed to comply with 40 CFR 61.132 through 61.134 shall be recorded and kept in a readily accessible location:
  - (1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
  - (2) The dates and descriptions of any changes in the design specifications.
- (b) The following information pertaining to sources subject to 40 CFR 61.132 and sources subject to 40 CFR 61.133 shall be recorded and maintained for 2 years following each semiannual (and other) inspection and each annual maintenance inspection:
  - (1) The date of the inspection and the name of the inspector.
  - (2) A brief description of each visible defect in the source or control equipment is to be submitted on a date scheduled by IDEM, OAQ.
  - (3) In the case of a new source that did not have an initial startup date preceding the effective date, the statement shall be submitted with the application for approval of construction, as described under 40 CFR 61.07.
  - (4) The statement is to contain the following information for each source:
    - (A) Type of source (e.g., a light-oil sump or pump).
    - (B) For equipment in benzene service, equipment identification number and process unit identification: percent by weight benzene in the fluid at the equipment; and process fluid state in the equipment (gas/vapor or liquid).
    - (C) Method of compliance with the standard (e.g., “gas blanketing,” “monthly leak detection and repair,” or “equipped with dual mechanical seals”). This includes whether the plant plans to be a furnace or foundry coke by-product recovery plant for the purposes of 40 CFR 61.132(d).

**D.3.12 National Emission Standards for Hazardous Air Pollutants (NESHAP)- Coke Byproduct Recovery Plant Record Keeping Requirements for- Equipment Leaks [40 CFR 61, Subpart V] [326 IAC 14]**

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Pursuant to 40 CFR 61.246, the Permittee shall comply with the following record keeping requirements:

- (a) The Permittee may comply with the record keeping requirements for the process units in one record keeping system if the system identifies each record by each process unit.
- (b) When each leak is detected as specified in 40 CFR 61.242-2, 242-7, and 242-8 the following requirements apply:



- (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
  - (2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 61.242-7(c) and no leak has been detected during those 2 months.
  - (3) The identification on equipment, except on a valve, may be removed after it has been repaired.
- (c) When each leak is detected as specified in 40 CFR 61, Sections 242-2, 242-7, and 242-8 the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:
- (1) The instrument and operator identification numbers and the equipment identification number;
  - (2) The date the leak was detected and the dates of each attempt to repair the leak;
  - (3) Repair methods applied in each attempt to repair the leak;
  - (4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 61.245(a) after each repair attempt is equal to or greater than 10,000 ppm.
  - (5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
  - (6) The signature of the Permittee (or designate) whose decision it was that the repair could not be effected without a process shutdown;
  - (7) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days;
  - (8) Dates of process unit shutdowns that occur while the equipment is unrepaired; and,
  - (9) The date of successful repair of the leak.
- (d) The following information pertaining to the design requirements for the closed-vent system and activated carbon canister system shall be recorded and kept in a readily accessible location:
- (1) Detailed schematics, design specifications, and piping and instrumentation diagrams;
  - (2) The dates and descriptions of any changes in the design specifications;
  - (3) A description of the parameter or parameters monitored, as required in 40 CFR 61.242-11(e), to ensure that the activated carbon canister system is operated and maintained in conformance with its design and an explanation of why that parameter (or parameters) was selected for the monitoring;
  - (4) Periods when the closed-vent system and activated carbon canister system are not operated as designed; and,

- (5) Dates of startups and shutdowns of the closed-vent system and activated carbon canister system.
- (e) The following information pertaining to all equipment to which a standard applies shall be recorded in a log that is kept in a readily accessible location:
  - (1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of 40 CFR 61, Subpart V;
  - (2) A list of identification numbers for equipment that the Permittee elects to designate for no detectable emissions as indicated by an instrument reading of less than 500 ppm above background. The designation of this equipment for no detectable emissions shall be signed by the Permittee;
  - (3) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 61.242-4(a); and,
  - (4) The following information for each compliance test required in 40 CFR 61.242-4:
    - (A) The dates of each compliance test.
    - (B) The background level measured during each compliance test; and,
    - (C) The maximum instrument reading measured at the equipment during each compliance test.

**D.3.13 National Emission Standards for Hazardous Air Pollutants (NESHAP) -Benzene Waste Operations -Record Keeping Requirements [40 CFR 61, Subpart FF] [326 IAC 14]**

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- (a) Pursuant to 40 CFR 61.356(b), the Permittee shall maintain records that identify each waste stream at the facility subject to 40 CFR 61, Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with 40 CFR 61, Subpart FF.
- (b) Pursuant to 40 CFR 61.356(b)(1), for each waste stream not controlled for benzene emissions in accordance with 40 CFR 61, Subpart FF, the Permittee shall keep records that include all test results, measurements, calculations, and other documentation used to determine the following information for the waste stream: waste stream identification, water content, whether or not the waste stream is a process wastewater stream, annual waste quantity, range of benzene concentrations, annual average flow-weighted benzene concentration, and annual benzene quantity.
- (c) Pursuant to 40 CFR 61.356(a), the Permittee shall maintain each record in accordance with Section C - General Record Keeping Requirements.

**D.3.14 National Emission Standards for Hazardous Air Pollutants (NESHAP) -Coke Byproduct Recovery Plant - Benzene Reporting Requirements [40 CFR 61 Subpart L][326 IAC 14]**

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Pursuant to 40 CFR 61.138, the Permittee shall comply with the following reporting requirements:

- (a) A report shall be submitted to IDEM, OAQ semiannually starting 6 months after the initial reports required in 40 CFR 61.138(e) and 40 CFR 61.10, which includes the following information:
  - (1) For sources subject to 40 CFR 61.132 and sources subject to 40 CFR 61.133,
    - (A) A brief description of any visible defect in the source or ductwork,

- (B) The number of leaks detected and repaired, and
  - (C) A brief description of any system abnormalities found during each annual maintenance inspection that occurred in the reporting period and the repairs made.
- (2) For equipment in benzene service subject to 40 CFR 61.135(a), information required by 40 CFR 61.247(b).
  - (3) For each exhauster subject to 40 CFR 61.135 for each quarter during the semiannual reporting period,
    - (A) The number of exhausters for which leaks were detected as described in 40 CFR 61.135 (d) and (e)(5),
    - (B) The number of exhausters for which leaks were repaired as required in 40 CFR 61.135 (d) and (e)(6),
- The results of performance tests to determine compliance with 40 CFR 61.135(g) conducted within the semiannual reporting period.
- (4) A statement signed by the Permittee stating whether all provisions of 40 CFR Part 61, subpart L, have been fulfilled during the semiannual reporting period.
  - (5) For foundry coke by-product recovery plants, the annual coke production of both furnace and foundry coke, if determined during the reporting period.
  - (6) Revisions to items reported according to 40 CFR 61.139(e), if changes have occurred since the initial report or subsequent revisions to the initial report.

NOTE: Compliance with the requirements of 40 CFR 61.10(c) is not required for revisions documented under this paragraph.

- (b) In the first report submitted as required in 40 CFR 61.138(e), the report shall include a reporting schedule stating the months that semiannual reports shall be submitted. Subsequent reports shall be submitted according to that schedule unless a revised schedule has been submitted in a previous semiannual report.
- (c) A Permittee electing to comply with the provisions of 40 CFR 61.243–1 and 61.243–2 shall notify IDEM, OAQ of the alternative standard selected 90 days before implementing either of the provisions.
- (d) An application for approval of construction or modification, as required under 40 CFR 61.05(a) and 61.07, will not be required for sources subject to 40 CFR 61.135 if:
  - (1) The new source complies with 40 CFR 61.135, and
  - (2) In the next semiannual report required by 40 CFR 61.138(f), the information described in 40 CFR 61.138(e)(4) is reported.

**D.3.15 National Emission Standards for Hazardous Air Pollutants (NESHAP) Coke Byproduct Recovery Plant - Equipment Leaks Reporting Requirements [40 CFR 61, Subpart V] [326 IAC 14]**

- (a) Pursuant to 40 CFR 61.247, the Permittee shall comply with the reporting requirements of this paragraph. A report shall be submitted to the US EPA and IDEM, OAQ semi-annually that includes the following information:
  - (b) Process unit identification;

- (c) For each month during the semi-annual reporting period:
- (1) Number of valves for which leaks were detected as described in 40 CFR 61.242-7(b) and condition D.3.9(c)(2);
  - (2) Number of valves for which leaks were not repaired as required in 40 CFR 61.242-7(d) and condition D.3.9(c)(5);
  - (3) Number of pumps for which leaks were detected as described in 40 CFR 61.242-2(b) and condition D.3.9(a)(3) and (4);
  - (4) Number of pumps for which leaks were not repaired as required in 40 CFR 61.242-2(c) and condition D.3.9(a)(5) and (6); and,
  - (5) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.
  - (6) Dates of process unit shutdowns which occurred within the semi-annual reporting period;
  - (7) Revisions to items reported according to the initial report required by 40 CFR 61.247(a)(1) if changes have occurred since the initial report or subsequent revisions to the initial report; and,
  - (8) The results of all performance tests and monitoring to determine compliance with no detectable emissions conducted within the semi-annual reporting period.

D.3.16 National Emission Standards for Hazardous Air Pollutants (NESHAP) Benzene Waste Operations Reporting Requirements [40 CFR 61, Subpart FF] [326 IAC 14]

- (a) Pursuant to 40 CFR 61.357(c), the Permittee shall submit to the US EPA and IDEM, OAQ, the following information if the total annual benzene quantity from facility waste is less than 10 Mg/yr (11 tons/yr), but is equal to or greater than 1 Mg/yr (1.1 tons/yr):
- (1) A report annually containing information to update the report originally submitted pursuant to 40 CFR 61.357 (a)(1) through (a)(3), and
  - (2) A report whenever there is a change in the process generating the waste stream that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr or more.
  - (3) If the information in the annual report has not changed from the following year as specified in 40 CFR 61.357(c) a statement to that effect.

## SECTION D.4 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:** One (1) coke oven gas (COG) desulfurization facility

- (a) One (1) amine unit, constructed in 1997, removes the hydrogen sulfide and other organic sulfur compounds from the coke oven gas (COG) stream.
- (b) One (1) reflux unit, constructed in 1997, removes the ammonia and other acid gases from the COG stream.
- (c) One (1) hydrogen cyanide (HCN) destruction unit, constructed in 1997 converts HCN in the acid gas stream to ammonia to minimize corrosion to the Sulfur Recovery Unit.
- (d) One (1) sulfur recovery unit, constructed in 1997, converts the sulfur compounds in the acid gas stream to elemental sulfur. This sulfur is sold as a by-product.
- (e) One (1) incineration unit, constructed in 1997, changes the sulfur compounds not removed by the sulfur recovery unit into sulfur dioxide which is burned off in the tail gas incinerator.

(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 PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]

- (a) Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the Coke Plant Desulfurization Facility Tail Gas Incinerator shall not exceed 0.13 pound per hour.
- (b) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving."

#### D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and associated control devices.

#### D.4.3 Coke Oven Gas (COG) Desulfurization Facility Downtime

Pursuant to the Agreed Order signed March 22, 1996, by US Steel and IDEM and amended May 1, 2001, the Coke Oven Gas Desulfurization Plant's down time shall not exceed nine hundred and fifty (950) hours per year.

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

#### D.4.4 Record Keeping Requirements

- (a) To document compliance with Condition D.4.2, the Permittee shall maintain of records of any additional inspections required by the Preventive Maintenance Plan.
- (b) To document compliance with Condition D.4.3, the Permittee shall maintain of records of hours of the downtime of the Coke Oven Gas Desulfurization Plant.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.4.5 Reporting requirements

A summary report of the hours of down time of the Coke Oven Gas Desulfurization Plant shall be submitted within thirty (30) days after the end of the calendar year in accordance with Section

C - General Reporting Requirements, of this permit, 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.5 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: One (1) No. 2 Coke Plant Boiler House

- (a) Two (2) Boilers, Nos. 1 and 2, identified as CSS10155 and CSS20156, constructed prior to 1970, with a maximum heat input capacity of 160 MMBtu per hour each, exhausting stack CS6061. These boilers are equipped to combust natural gas.
- (b) One (1) Boiler, No. 3, identified as CSS30157, constructed in 1943, with a maximum heat input capacity of 160 MMBtu per hour, exhausting to stack CS6062. This boiler is equipped to combust natural gas and coke oven gas.
- (c) Two (2) Boilers, Nos. 4 and 5, identified as CSS40158 and CSS50159, constructed prior to 1955, with a maximum heat input of 170 MMBtu per hour each, exhausting to stack CS6063. These boilers are equipped to combust natural gas and coke oven gas.
- (d) One (1) Boiler No. 6, identified as CSS60160, constructed in 1955, with a maximum heat input capacity of 170 MMBtu per hour, exhausting to stack CS6064. This boiler is equipped to combust natural gas and coke oven gas.
- (e) One (1) Boiler, No. 7, identified as CS70161, constructed in 1976, with a maximum heat input capacity of 170 MMBtu per hour, exhausting to stack CS6065. This boiler is equipped to combust natural gas and coke oven gas.
- (f) One (1) Boiler, No. 8, identified as CSS80162, constructed in 1981, with a maximum heat input capacity of 250 MMBtu per hour, exhausting to stack CS6066. This boiler is equipped to combust natural gas and coke oven gas.
- (g) One (1) natural gas fired boiler at the coke plant boiler house, identified as the temporary rental boiler CSS80163, constructed in 2004 with a maximum heat input capacity of 235 MMBtu/hr and equipped with a low NOx burner, exhausting to the existing stack CS6066.
- (h) Two (2) boilers at the coke plant boiler house, identified as Boilers No. 9 CSS80164 and No. 10 CSS 80165, constructed in 2004, each with a maximum heat input capacity of 235 MMBtu/hr, exhausting to stacks CS6067 and CS6068, respectively. These boilers are equipped to burn natural gas and coke oven gas.
- (i) One (1) lime storage silo with a maximum capacity of 20 tons per hour and emissions controlled by a baghouse LRS-1, constructed in 2001, exhausting inside the building.

(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 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAP) [326 IAC 20-1][40 CFR 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, as designated by 40 CFR 63.7506(b). The Permittee must comply with these requirements on and after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.5.15, National Emission Standards for Hazardous Air Pollutants for Industrial,

Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD-Notification Requirements.

D.5.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]

- (a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD). Pursuant to this rule, the Permittee shall comply with 40 CFR 63, Subpart DDDDD on and after three years after September 13, 2004.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.
- (c) The following emissions units comprise the affected source for the large gaseous fuel subcategory: No. 2 Coke Plant Boiler House Boilers Nos. 1, 2, 3, 4, 5, 6, 7, and 8.
- (d) Pursuant to 40 CFR 63, Subpart DDDDD, the temporary rental boiler, boiler No. 9, and boiler No. 10 comprise the affected source for the new large gaseous fuel subcategory. Pursuant to 40 CFR 63.7500(a)(1), upon startup or by November 14, 2004, the CO emissions from each of these new boilers shall not exceed 400 ppm by volume on a dry basis corrected to 7 percent oxygen based on 30-day rolling average.
- (e) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 is applicable to the affected sources.
- (f) Pursuant to 40 CFR Part 63.7505(e), the Permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) for the temporary rental boiler, boiler No. 9, and boiler No. 10 according to the provisions of 40 CFR Part 63.6(e)(3).

D.5.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)] [326 IAC 6-1-2(b)]

Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the Boilers Nos.1 and 2, CSS10155 and CSS20156, Boiler No. 3, CSS60157, Boiler No. 4, CSS40158, Boiler No. 5, CSS50159, Boiler No. 6, CSS60160, Boiler No. 7, CSS70161 and Boiler No. 8, CSS80162 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Boilers Nos.1 and 2 stacks CS6060 and CS6061 shall not exceed 0.003 pounds per MMBtu heat input and a total of 0.75 pound per hour.
- (b) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Boiler No. 3 stack CS6062 shall not exceed 0.012 pound per MMBtu of heat input and 1.8 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Boilers No.4 and No.5 stack CS6063 shall not exceed 0.012 pound per MMBtu of heat input and 3.9 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Boiler No.6 stack CS6064 shall not exceed 0.012 pound per MMBtu of heat input and 2.0 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Boiler No. 7 Stack CS6065 shall not exceed 0.012 pound per MMBtu of heat input and 1.9 pounds per hour.
- (f) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Boiler No. 8 Stack CS6066 shall not exceed 0.012 pound per MMBtu of heat input and 2.9 pounds per hour.



- (g) The PM<sub>10</sub> emissions from the Coke Plant Boiler House Lime Storage Silo Baghouse LRS-1 shall not exceed 0.030 grain per dry standard cubic foot and 0.28 pound per hour.
- (h) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving.
- (i) Pursuant to 326 IAC 6-1-2(b)(3) (Nonattainment Area Particulate Limitations), particulate matter (PM) from each of the boilers No. 9, No. 10 and the temporary rental boiler shall not exceed 0.01 grains per dry standard cubic foot (gr/dscf) of exhaust air.

D.5.4 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(D)] [326 IAC 7-4-1.1(a)]

Pursuant to 326 IAC 7-4-1.1(c)(22), the SO<sub>2</sub> emissions from the Boilers: Boiler No. 1 CSS10155, Boiler No. 2 CSS20156, Boiler No. 3 Stack CS6062, Boiler No. 4 and 5 Stack CS6063,, Boiler No. 6 Stack CS6064, Boiler No. 7 Stack CS6065 and Boiler No. 8 Stack CS6066 shall comply with the following:

- (a) Boiler Nos. 1 and 2, CSS10155 and CSS20156 shall burn natural gas only.
- (b) The SO<sub>2</sub> emissions from each Stack CS6062, CS6063 and CS6064 serving Boiler Nos. 3, 4, 5 and 6 shall not exceed 1.20 pounds of SO<sub>2</sub> per MMBtu of heat input.
- (c) The SO<sub>2</sub> emissions from each Stack CS6065 and CS6066 serving Boiler Nos. 7 and 8 shall not exceed 1.07 pounds of SO<sub>2</sub> per MMBtu of heat input.
- (d) Only four (4) of No. 2 Coke Plant Boiler House Boilers may operate using coal or coke oven gas at the same time. If more than four (4) boilers are in operation, all but four (4) shall use natural gas.
- (e) Pursuant to 326 IAC 7-4-1.1(a), boilers No. 9 and No. 10 shall combust natural gas only.

D.5.5 Nonattainment NSR Minor Limits [326 IAC 2-1.1-5]

Pursuant to Significant Source Modification 089-19678-00121, issued October 29, 2004 and in order to make the requirements of 326 IAC 2-1.1-5 Nonattainment NSR not applicable, the Permittee shall comply with the following:

- (a) The NO<sub>x</sub> emissions from each boiler No. 1 through 8 shall not exceed 280 pounds per million cubic feet (MMCF) of natural gas . (This is the NO<sub>x</sub> emission factor in AP-42, Table 1.4-1 for uncontrolled boilers.)
- (b) The NO<sub>x</sub> emissions from the temporary rental boiler shall not exceed 36.0 pounds per million cubic feet (MMCF) for natural gas,
- (c) The NO<sub>x</sub> emissions from each of the boilers No. 9 and No. 10 shall not exceed 129 pounds per million cubic feet (MMCF) of natural gas.
- (d) The total NO<sub>x</sub> emissions from boilers No. 1 through No. 10 and the temporary rental boiler at the coke plant boiler house (CPBH) shall be limited to less than 64.6 tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly NO<sub>x</sub> emissions shall be calculated using the following equation:

$$\text{NO}_x \text{ Emissions (tons/month)} = (280 X + 36 Y + 129 Z) / 2,000$$

Where:

X = total monthly natural gas usage in boilers No. 1 through No. 8 (MMCF/month)  
Y = monthly natural gas usage in the temporary rental boiler (MMCF/month)  
Z = total monthly natural gas usage in boilers No. 9 and No. 10 (MMCF/month)

This limitation ensures the net NO<sub>x</sub> emission increase from the modification to add Boilers No. 9 and No. 10 shall be less than 40 tons/yr and the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) are not applicable.

#### D.5.6 PSD Minor Limits [326 IAC 2-2]

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Pursuant to Significant Source Modification 089-19678-00121, issued October 29, 2004 and in order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall limit the total natural gas usage from boilers No. 1 through No. 10 and the temporary rental boiler to less than 2,550 MMCF per twelve (12) consecutive month period with compliance determined at the end of each month.

This is equivalent to 9.69 tons/yr of PM10 emissions and 107 tons/yr of CO emissions from boilers No. 1 through No. 10 and the temporary rental boiler. The net emission increases from this modification are limited to less than 15 tons/yr for PM10 and less than 100 tons/yr for CO. Therefore, the requirements of 326 IAC 2-2 (PSD) is not applicable.

#### D.5.7 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

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- (a) The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to boilers No. 9, No. 10, and the temporary rental boiler at the coke plant boiler house, except when otherwise specified in 40 CFR Part 60, Subpart Db.
- (b) Since boilers No. 9 and No. 10 shall use natural gas only pursuant to 326 IAC 7-4-1.1 (Lake County SO<sub>2</sub> Emission Limitations) and Condition D.5.6(e), the emission limitations and the compliance requirements for coke oven gas combustion at boilers No. 9 and No. 10 are not included in this permit.

#### D.5.8 NO<sub>x</sub> Emissions [326 IAC 12-1][40 CFR 60, Subpart Db]

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Pursuant to 40 CFR 60.44b(a), the NO<sub>x</sub> emissions from each of the boilers No. 9, No. 10, and the temporary rental boiler at the coke plant boiler house shall not exceed 0.2 lbs/MMBtu when combusting natural gas.

#### D.5.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any associated control devices.

### Compliance Determination Requirements

#### D.5.10 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11] [326 IAC 2-1.1-5] [40 CFR 60, Subpart Db] [40 CFR 63, Subpart DDDDD]

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Pursuant to Significant Source Modification 089-19678-0012, issued October 29, 2004 and in order to demonstrate compliance with Conditions D.5.5, D.5.8(a), and D.5.2(d), the Permittee shall perform NO<sub>x</sub> and CO testing for boilers No. 9, No. 10, and the temporary rental boiler within 60 days after achieving the maximum production, but not later than 180 days after initial startup, utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. Pursuant to 40 CFR 60.46b(e), the performance test requirements may be satisfied by using 30-day average emission rate data from NO<sub>x</sub> CEMs.

**D.5.11 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]**

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To demonstrate compliance with condition D.5.4, the Permittee shall perform the Sulfur Dioxide Sampling and Analysis in accordance with Section C - Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis of this permit.

**D.5.12 Particulate Matter Control**

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The lime storage silo baghouse shall be in operation and control particulate emissions at all times the silo is pneumatically loaded.

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

**D.5.13 Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 12] [40 CFR 60, Subpart Db] [326 IAC 2-7-6(1),(6)] [40 CFR 63, Subpart DDDDD]**

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- (a) Pursuant to 40 CFR 60.48(b) and in order to demonstrate compliance with Condition D.5.8(a), the Permittee shall comply with the following:
- (1) Install, calibrate, maintain, and operate a continuous monitoring system for boilers No. 9, No. 10, and the temporary rental boiler for measuring NOx emissions discharged to the atmosphere. The continuous monitoring system shall meet the performance specifications of 326 IAC 3-5-2, and 40 CFR 60.48(b), and 40 CFR 60.13(h). 326 IAC 3-5 is not federally enforceable; or
  - (2) Pursuant to 40 CFR 60.48b(g)(2), the Permittee shall monitor the operating conditions for the No. 9 and No.10 boilers and temporary rental boiler and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c).
- (b) If the Permittee chooses item D.5.13(a)(1) above, then pursuant 40 CFR 60.48b(f), when nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in the No. 9 and No. 10 boilers and temporary rental boiler in at least 22 of 30 successive operating days.
- (c) In order to demonstrate compliance with Condition D.5.2(d) and pursuant to 40 CFR 63.7525(a), the Permittee shall install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide for the temporary rental boiler, boiler No. 9, and boiler No. 10. The continuous monitoring system shall meet the performance specification of 326 IAC 3-5-2 and 40 CFR 63.7525(a)(1) through (6). The requirements of 326 IAC 3-5 is not federally enforceable.

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

**D.5.14 Record Keeping Requirements**

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- (a) To document compliance with Condition D.5.5(b), D.5.5(c) and D.5.8, the Permittee shall maintain records of the NOx emissions from boilers No. 9, No. 10, and the temporary rental boiler in accordance with 40 CFR 60.49b.
- (b) To document compliance with Condition D.5.5(d), the Permittee shall maintain monthly records of the following:
- (1) total natural gas usage for boilers No. 1 through No. 8;
  - (2) natural gas usage for the temporary rental boiler;
  - (3) total natural gas usage for boilers No. 9 and No. 10; and

- (4) calculated NOx emissions using the equation listed in Condition D.5.5(d).
- (c) To document compliance with Condition D.5.6, the Permittee shall maintain monthly records of the total natural gas usage for boilers No. 1 through No. 10 and the temporary rental boiler.
- (d) To document compliance with Condition D.5.4, the Permittee shall maintain records in accordance with Section C- Sulfur Dioxide (SO<sub>2</sub>) Record Keeping Requirements (Entire Source).
- (e) To document compliance with Conditions D.5.2(d), the Permittee shall maintain records of the CO CEM data for boilers No. 9, No. 10, and the temporary rental boiler in accordance with 40 CFR 63.7555(b).
- (f) Pursuant to 40 CFR 63.7555(a)(1), the Permittee shall keep records of a copy of each notification and report to comply with 40 CFR Part 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report.
- (g) Pursuant to 40 CFR 63.7555(a)(2), the Permittee shall keep records related to startup, shutdown and malfunction.
- (h) To document compliance with Conditions D.5.9, the Permittee shall maintain records of the additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.15 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]

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- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.9(b)(2) that apply to the affected sources for the large gaseous fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
  - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) for boilers Nos. 1 through 8 not later than March 12, 2004, as required by 40 CFR 63.7545(b).
  - (2) Pursuant to 40 CFR 63.7545(c), the Permittee shall submit an Initial Notification no later than 120 days after the initial startup of the rental boiler, boiler No. 9 and boiler No. 10.
  - (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
  - (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
    - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).

- (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable
- (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (b) The notifications required by paragraph (a) shall be submitted to:  
  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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

#### D.5.16 Reporting Requirements

- (a) A quarterly summary report to document compliance with condition D.5.4 shall be submitted to IDEM, in accordance with Section C – Sulfur Dioxide Reporting Requirements (Entire Source). The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The natural gas boiler certification for boilers No. 3 through No. 10 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) A quarterly summary of the information to document compliance with Conditions D.5.5(d) and D.5.6 shall be submitted to the address 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 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).
- (d) The Permittee shall comply with the reporting requirements in 40 CFR 63.7550 for the temporary rental boiler, boiler No. 9, and boiler No. 10.
- (e) The Permittee shall comply with the reporting requirements in 40 CFR 63.7550 for the temporary rental boiler, boiler No. 9, and boiler No. 10.

#### D.5.17 Natural Gas Fired Boiler Certification

A semi-annual certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the Natural Gas Fired Boiler Certification form located at the end of this permit, or its equivalent for the Number 2 Coke Plant Boiler House Boilers Nos. 3, through 10 and the rental natural gas fired boilers. 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): One (1) Number 3 Sinter Plant

- (a) Three (3) Sinter Strands Windbox units, constructed in 1979, identified as ISS10379, ISS20380 and ISS30381, each with a 50 MMBtu per hour low NOx/flue gas recirculating burner system identified as ISB001, ISB002 and ISB003 and a maximum capacity of 225 tons of sinter per hour each, controlled by two (2) Windbox Gas Cleaning Systems IS3203 and IS3204, replaced in 1996, each comprised of a Quench Reactor, Dry Venturi Scrubber, a baghouse operated in series, and VOC CEMS, exhausting to Windbox stacks IS6198 and IS6199.
- (b) One (1) Cold Screen Station, identified as ISR00389, constructed in 1979, with a maximum capacity of 450 tons per hour, using a Baghouse IS3209 as a control device and exhausting to stack IS6207.
- (c) One (1) S1/S2 Conveyer System, identified as ISY00388, constructed in 1979, with a maximum capacity of 450 tons per hour, that transfers sinter from the sinter coolers to the cold screening station, using a Baghouse IS3208 as a control device and exhausting to stack IS6206.
- (d) Three (3) Sinter Coolers, identified as ISC10385, ISC20386, and ISC30387, constructed in 1979, with a maximum capacity of 225 ton per hour each, with emissions exhausting to stacks IS6203, IS6204, and IS6205 respectively.
- (e) Three (3) Sinter Strand Discharge End Areas, identified as ISS10379, ISS20380 and ISS0381, constructed in 1979, using three (3) baghouses as control devices, designated as IS3205, IS3206, and IS3207, exhausting to stacks IS6200, IS6201, and IS6202 respectively.
- (f) Blended Material Storage Bin Building, identified as ISB00377, constructed in 1979, with a maximum capacity of 1,000 tons per hour, using a Baghouse IS3196 as a control device and exhausting to stack IS6197.
- (g) Storage and Blending Piles, identified as ISBP0376, exhausting fugitive emissions.

(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 General Provisions Relating to Hazardous Air Pollutants (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 source, No. 3 Sinter Plant, except when otherwise specified by Table 4 in 40 CFR 63, Subpart FFFFF. The Permittee shall comply with these general provision requirements on and after May 20, 2003.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to D.6.24, National Emissions Standards for Hazardous Air Pollutants 40 CFR Part 63 Subpart FFFFF –Notification Requirements.

#### D.6.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Emission Limitations for Sinter Plants [40 CFR 63, Subpart FFFFF]

- (a) The provisions of 40 CFR 63, Subpart FFFFF (National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing) apply to the affected sources. A copy of this rule is available on the US EPA Toxics Website at

<http://www.epa.gov/ttn/atw/mcm/mcmpg.html>. The Permittee must comply with these requirements on and after May 22, 2006.

- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph(a) of this condition.
- (c) Terminology used in this section is defined in the CAA, 40 CFR 63, Section 63.2, and in 40 CFR 63.8105, and are applicable to the affected source.
- (d) The Permittee shall meet each emission limitation in 40 CFR 63.7790 that applies to the Sinter Windbox Gas Cleaning System, Sinter Coolers and Sinter Discharge End Area Baghouses.
- (e) The Permittee shall meet each operation and maintenance requirements in 40 CFR 63.7800 that applies to No. 3 Sinter Plant and required capture and control equipment.
- (f) The Permittee shall develop and implement a written start-up, shutdown and malfunction plan in accordance with 40 CFR 63.7810(c). During periods of start-up, shutdown or malfunction, the Permittee shall operate in accordance with the plan and 40 CFR 63.7835(b).
- (g) The Permittee shall meet each monitoring requirement in 40 CFR 63.7830 that applies to the No. 3 Sinter Plant and required capture and control equipment.
- (h) The Permittee shall meet each requirement in 40 CFR 63.7831 regarding installation, operation and maintenance of monitors for each monitor required by 40 CFR 63, Subpart FFFFF, that applies to the No. 3 Sinter Plant and required capture and control equipment.

#### D.6.3 Particulate Emissions Offset [326 IAC 2-3]

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Pursuant to the significant source modification 089-12880-00121, issued July 26, 2001, the natural gas usage shall be less than 95.5 million cubic feet (MMCF) or the coke oven gas usage shall be less than 1,637.4 MMCF in the No. 3 Sinter Plant Sinter Strand Windbox recirculating burners ISB001, ISB002 and ISB003 per 12-consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit makes 326 IAC 2-3 (Emissions Offset) not applicable.

#### D.6.4 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]

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Pursuant to 326 IAC 6-1-10.1(d)(36), PM<sub>10</sub> emissions from the No. 3 Sinter Plant shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the No. 3 Sinter Plant Strand Windbox gas cleaning system stacks IS6198 and IS6199 emissions shall not exceed 0.020 grains per dry standard cubic foot and a total of 200.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the No. 3 Sinter Plant Cold Screen Station Baghouse Stack IS6207 shall not exceed 0.0100 grains per dry standard cubic foot and 10.89 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the No. 3 Sinter Plant S1/S2 Conveyor System Baghouse Stack IS6206 shall not exceed 0.0100 grains per dry standard cubic foot and 1.29 pounds per hour.

- (d) The PM<sub>10</sub> emissions from the No. 3 Sinter Plant Sinter Coolers Stacks IS6203, IS6204 and IS6205 shall not exceed 0.0300 grains per dry standard cubic foot and a total of 272.57 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the No. 3 Sinter Plant Discharge Ends Area Baghouse Stacks IS6200, IS6201 and IS6202 shall not exceed 0.0100 grain per dry standard cubic foot and total of 20.57 pounds per hour.
- (f) The PM<sub>10</sub> emissions from the No. 3 Sinter Plant Blended Material Storage Bins Building Baghouse Stack IS6197 shall not exceed 0.0100 grain per dry standard cubic foot and 0.43 pounds per hour.
- (g) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving”.

#### D.6.5 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(I)]

- (a) Pursuant to the Agreed Order signed March 22, 1996, by US Steel and IDEM, the SO<sub>2</sub> emissions from each Sinter Plant Strand Windbox gas cleaning systems stacks IS6198 and IS6199 shall not exceed 100.0 pounds per hour when the coke oven gas desulfurization plant is in operation.
- (b) Pursuant to the Agreed Order signed March 22, 1996, amended May 1, 2001, SO<sub>2</sub> emissions from each Sinter Plant Strand Windbox gas cleaning systems stack IS6198 and IS6199 shall not exceed 130.0 pounds of SO<sub>2</sub> per hour when the coke oven gas desulfurization plant experiences downtime. This limit shall only be applicable when the coke oven gas desulfurization plant is not in operation in accordance with condition D.4.3.
- (c) Pursuant to 326 IAC 7-4-1.1(c)(22), the SO<sub>2</sub> emissions from the three (3) Sinter Strands Windbox units, ISS10379, ISS20380 and ISS30381 shall not exceed 1.0 pounds per ton of sinter produced.

#### D.6.6 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-13-3]

Pursuant to 326 IAC 8-13-3(b) and (c), the No. 3 Sinter Plant sinter windbox gas cleaning system stacks (IS6198 and IS6199) shall not exceed the VOC emission limits as follows:

- (a) During the period May 1 through September 30, the total VOC emissions (the seasonal cap) shall not exceed 256,948 pounds of VOC emissions. This is based on the following equation:

$$\text{VOC (pounds)} = 0.25 \text{ lb of VOC per ton of sinter produced} \times \text{average daily sinter production rate of } 6717.59 \text{ tons per day} \times 153 \text{ days}$$

- (b) 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 2,096 pounds of VOC emissions. This is based on the following equation:

$$\text{VOC (pounds per day)} = 0.25 \text{ lb of VOC per ton of sinter produced} \times \text{maximum actual daily sinter production rate } 8384 \text{ tons per day}$$

- (c) 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 1,679 pounds of VOC emissions. This is based on the following equation:

$$\text{VOC (pounds per day)} = 0.25 \text{ lb of VOC per ton of sinter produced} \times \text{maximum actual daily sinter production rate of 6716 tons per day}$$

A high ozone level day shall be predicted by the Permittee in accordance with a high ozone day action plan developed by the Permittee and submitted to the IDEM - OAQ as part of the report required by 326 IAC 8-13-4(b).

- (d) The maximum actual daily sinter production (tons per day) is equal to the maximum actual sinter produced on an operating day during the period from 1990 to 1997.
- (e) The average daily sinter production equals either of the following:
  - (1) The annual average sinter production in tons divided by the annual average number of operating days in the period 1990 through 1994.
  - (2) In the event sinter production in 1990 to 1994 is not representative of the current sinter production due to factors, such as, but not limited to, routine repair, maintenance, or replacement, a source may elect to use the average actual sinter production in tons per day during a calendar year up to the year 1997, which represents current sinter production. The averaging period must include and not be less than the ozone season (May 1 through September 30).
- (f) 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.
- (g) Pursuant to 326 IAC 8-13-4(b)(8) and an Ozone Action Plan dated August 2, 1999, the Permittee shall do the following:
  - (1) Control the sinter burden oil and grease content by regulating the amount of mill scale in the sinter burden.
  - (2) Use a continuous emissions monitoring system to ensure compliance with the applicable limits.
  - (3) Implement the following sequence of events upon discovery and initial internal notification of an actual or projected VOC emission limit, exceedance.
    - (A) Verify the exceedance.
    - (B) Determine the exceedance status: ceased or on-going.
    - (C) Implement corrective measures if a verified on-going exceedance condition exists. The feed rate of mill scale to the sinter burden from the dedicated mill scale bin is reduced or terminated. Incremental reductions in the mill scale feed rate may be utilized.
  - (4) 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.

D.6.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, is required for these facilities and any associated emission control devices.

**Compliance Determination Requirements**

D.6.8 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for Sinter Plants [40 CFR 63.7810(a)][40 CFR 63.7825] [40 CFR 63.7826][40 CFR 63.7832]

- (a) Pursuant to 40 CFR 63.7810(a), the Permittee shall be in compliance with the emission limitations and operation and maintenance requirements in Condition D.1.2 at all times, except during periods of start-up, shutdown and malfunction as defined in 40 CFR 63.2, which incorporated by reference in 326 IAC 20-1-3. The Permittee shall comply with these requirements on and after May 20, 2006.
- (b) The Permittee shall demonstrate initial compliance with the emission limitations that apply to the No. 3 Sinter Plant in accordance with 40 CFR 63.7825.
- (c) The Permittee shall demonstrate initial compliance with the operation and maintenance requirements that apply to the No. 3 Sinter Plant, in accordance with 40 CFR 63.7826.
- (d) The Permittee shall monitor and collect data to demonstrate continuous compliance with 40 CFR 63, Subpart FFFFF, in accordance with 40 CFR 63.7832.
- (e) The Permittee shall demonstrate continuous compliance with the emissions limitations of 40 CFR 63, Subpart FFFFF that apply to the No. 3 Sinter Plant and required capture and control equipment in accordance with 40 CFR 63.7833.
- (f) The Permittee shall demonstrate continuous compliance with the operation and maintenance requirements of 40 CFR 63, Subpart FFFFF that apply to the No. 3 Sinter Plant and required capture and control equipment in accordance with 40 CFR 63.7834.

D.6.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing -Testing Requirements [40 CFR 63.7820 through 63.7824]

- (a) The Permittee shall conduct performance tests and other initial compliance demonstrations that apply to the No. 3 Sinter Plant, in accordance with 40 CFR 63.7820.
- (b) The Permittee shall conduct subsequent performance tests that apply to the No. 3 Sinter Plant, in accordance with 40 CFR 63.7821.
- (c) The Permittee shall use the test methods and other procedures in 40 CFR 63.7822 when demonstrating compliance with the emission limits for particulate matter for the Sinter Strands Windbox units, Sinter Coolers and Sinter Discharge End Areas.
- (d) The Permittee shall use the test methods and other procedures in 40 CFR 63.7823 when demonstrating compliance with the opacity limits for the Sinter Strands Windbox units, Sinter Coolers and Sinter Discharge End Areas.
- (e) The Permittee shall use the test methods and other procedures in 40 CFR 63.7824 to establish and demonstrate initial compliance with operating limits for the No. 3 Sinter Plant and required capture and control equipment.

D.6.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate

compliance with Condition D.6.4, the Permittee shall perform simultaneous sampling and analysis of both non-condensable (front half) and condensable (back half) PM<sub>10</sub> on Sinter Strand Windbox Gas Cleaning Systems Stacks IS6198 and IS6199, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of the last valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

- (b) Within thirty (30) months after issuance of this permit or five (5) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.6.4, the Permittee shall perform PM<sub>10</sub> testing of the Discharge Ends Area Baghouse Stacks IS6200, IS6201 and IS6202, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.
- (c) Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.6.4, the Permittee shall perform PM<sub>10</sub> testing of the three (3) Sinter Coolers Stacks IS6203, IS6204 and IS6205, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.
- (d) Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.6.5, the Permittee shall perform SO<sub>2</sub> testing on Sinter Strand Windbox Gas Cleaning Systems Stacks IS6198 and IS6199, using methods as approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of the last valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

#### D.6.12 Particulate Matter Control

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The control devices as listed in (a) through (e) below shall be in operation at all times the associated processes are in operation to control particulate emissions.

- (a) Sinter Strand Windbox Gas Cleaning System each comprised of a Quench Reactor, Dry Venturi Scrubber, and a Baghouse in series, identified as emission units IS3203 and IS3204, shall be in operation at all times when the No. 3 Sinter Plant Sinter Windbox is in operation.
- (b) The Cold Screen Station Baghouse, identified as control device IS3209, shall be in operation at all times when the No. 3 Sinter Plant Cold Screen Station is in operation.
- (c) The S1/S2 Conveyor System Baghouse, identified as control device IS3208, shall be in operation at all times material is conveyed by the No. 3 Sinter Plant S1/S2 conveyor system.
- (d) The Sinter Strand Discharge Ends Area Baghouses, identified as control devices IS3205, IS3206, IS3207, shall be in operation at all times when the associated No. 3 Sinter Plant Sinter Strand Discharge Ends Area and Sinter Coolers are in operation.
- (e) The Blended Material Storage Bins Baghouse, identified as control device IS3196, shall be in operation at all times when material is stored in the No. 3 Sinter Plant Blended Material Storage Bins.

**D.6.13 Continuous Emissions Monitoring (VOC)[326 IAC 8-13-8][326 IAC 3-5]**

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The Permittee shall operate the continuous emissions monitoring system (CEMS) for the measurement of VOC emissions discharged into the atmosphere from the No. 3 Sinter Plant Sinter windbox gas cleaning system stacks IS6198 and IS6199, in accordance with 326 IAC 8-13-8, and 326 IAC 3-5.

- (a) The continuous emissions monitoring system (CEMS) shall measure VOC emission rate in pounds per hour.
- (b) The Permittee shall demonstrate compliance with Condition D.6.6 utilizing data from the VOC CEMS and 326 IAC 8-13-3(b) calculations.
- (c) The Permittee shall follow the maintenance, operating procedures, quality assurance procedures and performance specifications for the VOC CEMs in 326 IAC 3-5.

**D.6.14 VOC Monitoring Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]**

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Whenever the VOC continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following method shall be used to provide information related to VOC emissions:

- (a) The Permittee shall not include oily scale in the sinter plant burden raw materials, and
- (b) Sample and analyze the sinter burden for oil and grease utilizing the methods and calculations in 326 IAC 8-13-5(d).

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

**D.6.15 Visible Emissions Notations**

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- (a) Visible emission notations of the Sinter Strand Windbox Gas Cleaning System stacks IS6198 and IS6199, Cold Screen Station Stack IS6207, Sinter Cooler Stacks IS6203, IS6204 and IS6205 and Discharge Ends Area Stacks IS6200, IS6201 and IS6202, shall be performed once per shift during normal daylight operations when the No. 3 Sinter Plant Sinter Strand Windbox Gas Cleaning System, Cold Screen Station, Sinter Coolers and Discharge Ends Area are in operation. 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

**D.6.16 Parametric Monitoring**

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- (a) The Permittee shall record the total static pressure drop and liquid reagent flow rate of the dry venturi scrubbers used in conjunction with the No. 3 Sinter Plant Sinter Strand Windbox Gas Cleaning Systems at least once per shift when the No. 3 Sinter Plant

Sinter Strand Windbox units are in operation. When for any one reading, the pressure drop across the scrubbers is outside the range of 3.0 to 8.0 inches of water and the flow rate of the scrubber is outside the range of 400 to 600 gallons per minute (gpm) or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure drop or flow rate that is outside the above mentioned ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

- (b) The Permittee shall record the total static pressure drop of the baghouse used in conjunction with the No. 3 Sinter Plant Discharge Ends Area at least once per shift when the No. 3 Sinter Plant Discharge Ends Area is in operation. When for any one reading, the pressure drop across the baghouse is outside the range of 3.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.
- (c) The Permittee shall record the total static pressure drop of the baghouse used in conjunction with the No. 3 Sinter Plant Cold Screen Station at least once per shift when the No. 3 Sinter Plant Cold Screen Station is in operation. When for any one reading, the pressure drop across the baghouse is outside the range of 3.0 to 8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.
- (d) The instruments used for determining the pressure drop and flow rate shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated at least once every six (6) months.

#### D.6.17 Baghouse Inspections

An inspection shall be performed each calendar quarter of the bags in the Sinter Plant Windbox Gas Cleaning Systems Baghouses IS3203 and IS3204, Cold Screen Station Baghouse IS3209 and Sinter Strand Discharge Ends Area Baghouses IS3205, IS3206 and IS3207. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.6.18 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit. If operations

continue after bag failure is observed and it will be 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 or replaced. 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.

- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately 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).

#### D.6.19 Scrubber Inspections

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An inspection shall be performed each calendar quarter of the Sinter Strand Windbox gas cleaning systems dry venturi scrubbers. Inspections required by this condition shall not be performed in consecutive months.

#### D.6.20 Scrubber Failure Detection

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In the event, a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately 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 C - Emergency Provisions).

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

#### D.6.21 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Record Keeping Requirements for Sinter Plants [40 CFR 63.7810(b)][40 CFR 3 Sinter Plant process and control equipment in accordance with 40 CFR 63.7810(b)] [40 CFR 63.7] in accordance with 40 CFR 63.7810(b)] [40 CFR 63.7]

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- (a) During the period between May 22, 2006 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, the Permittee shall maintain a log detailing the operation and maintenance of the No. 3 Sinter Plant process and control equipment in accordance with 40 CFR 63.7810(b).
- (b) The Permittee shall keep the records required by 40 CFR 63.7842(a).
- (c) If a Continuous Opacity Monitoring System (COMS) is used to comply with an opacity standard, the Permittee shall keep the records specified in 40 CFR 63.7842(b).
- (d) The Permittee shall keep the records required in 40 CFR 63.6(h)(6) for visible observations in accordance with 40 CFR 63.7842(c).
- (e) The Permittee shall keep the records required in 40 CFR 63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to the No. 3 Sinter Plant in 40 CFR 63.7842(d).
- (f) The Permittee shall keep the records required by 40 CFR 63, FFFFF in accordance with 40 CFR 63.7843 and the General Record Keeping Requirements in Section C of this permit.

#### D.6.22 General Record Keeping Requirements

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- (a) To document compliance with Condition D.6.3 and pursuant to Significant Source Modification 089-12880-00121, issued on July 26, 2001, the Permittee shall maintain records of the Coke oven gas and natural gas usage in the No. 3 Sinter Plant Sinter Strand Windbox gas recirculating burners ISB001, ISB002 and ISB003.
- (b) To document compliance with Condition D.6.5, the Permittee shall maintain records in accordance with Section C – Sulfur Dioxide (SO<sub>2</sub>) Record Keeping (Entire Source).
- (c) To document compliance with Condition D.6.6, the Permittee shall maintain the following records:
  - (1) Records of the VOC emissions monitoring data for the period May 1 through September 30, as follows:
    - (A) The VOC emitted each day.
    - (B) The cumulative total of VOC emitted.
    - (C) The sinter produced each operating day.
  - (2) Maintain records of the VOC continuous emissions monitor (CEM) as required in 326 IAC 3-5.
- (d) To document compliance with Condition D.6.15 the Permittee shall maintain records of once per shift visible emission notations of the Sinter Strand Windbox Gas Cleaning System stacks IS6198 and IS6199, Cold Screen Station Stack IS6207 Sinter Cooler Stacks IS6203, IS6204 and IS6205 and Sinter Discharge Ends Area IS6200, IS6201 and IS6202 exhausts.
- (e) To document compliance with Condition D.6.16, the Permittee shall maintain the records of the Sinter Strand Windbox Gas Cleaning system pressure drop across the baghouse; pressure drop and flow rate of the Sinter Strand Windbox Gas Cleaning Scrubbers; pressure drop across the Cold Screen Station Baghouse and pressure drop across the Discharge Ends Area baghouse during normal operation on at least a once per shift basis.
- (g) To document compliance with Conditions D.6.17 and D.6.19, the Permittee shall maintain records of the results of the inspections required under Conditions D.6.17 and D.6.19
- (h) To document compliance with Condition D.6.8, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (i) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.6.23 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Reporting Requirements for Sinter Plants [40 CFR 63.7835][40 CFR 63.7640]

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- (a) The Permittee shall report each deviation in the Quarterly Deviation and Compliance Monitoring Report required by the C Section of this permit in accordance with 40 CFR 63.7835(a), 40 CFR 63.7841(d), 326 IAC 2-1.1-11 and 326 IAC 2-7-5(3).
- (b) The Permittee shall submit the notifications required by 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and 40 CFR 63.9(b) through (h) that apply by the dates specified in those sections in accordance with 40 CFR 63.7840(a).

- (c) The Permittee shall submit an initial notification no later than September 17, 2003 in accordance with 40 CFR 63.9(b) and 40 CFR 63.7840. The initial notification shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The initial notification requires the certification by the “responsible official” as defined in 326 IAC 2-7-1(34).

- (d) The Permittee shall submit a notification or compliance status in accordance with 40 CFR 63.9(h)(2)(ii) and 40 CFR 63.7840(e).

(1) For each initial compliance demonstration that does not include a performance test, the Permittee shall submit the notification of compliance status before the close of business on the 30th calendar day following completion of the initial compliance demonstration.

(2) For each initial compliance demonstration that does include a performance test, the Permittee shall submit the notification of compliance status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).

(3) The notification of compliance status shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The notification of compliance status requires the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (e) The Permittee shall submit semiannual compliance reports in accordance with 40 CFR 63.7841(a) and (b).
- (f) If a start-up, shutdown or malfunction occurred during the semiannual reporting period that was not consistent with the start-up, shutdown or malfunction plan, the Permittee shall submit an immediate start-up, shutdown and malfunction report according to the requirements in 40 CFR 63.10(d)(5)(ii) and 40 CFR 63.7841(c).

#### D.6.24 General Reporting Requirements

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- (a) Pursuant to Significant Source modification 089-12880-00121, a quarterly summary of the natural gas and coke oven gas usage at the No. 3 Sinter Plant Sinter Strands Windbox recirculating burners per 12-consecutive month period with compliance demonstrated at the end of each month to document compliance with Conditions D.6.3, shall be submitted to the address 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 quarter being reported.
- (b) Pursuant to 326 IAC 8-13-8(a)(3), reports to document compliance with Condition D.6.6, shall be as follows:



- (1) For VOC Continuous Emissions Monitoring System (CEMS), the following reports shall be submitted:
  - (A) A report shall be submitted within thirty (30) days of an exceedance of VOC emission limits in D.6.6 containing the following information:
    - (i) The name and location of the source.
    - (ii) The nature of the exceedance.
    - (iii) The date of the occurrence.
    - (iv) The cause of the exceedance, such as, but not limited to, production rates or characteristics of the sinter burden.
    - (v) 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.
- (c) A quarterly summary report to document compliance with condition D.6.5 shall be submitted to IDEM, in accordance with Section C – Sulfur Dioxide (SO<sub>2</sub>) Reporting Requirements (Entire Source).
- (d) The reports submitted by the Permittee do require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

D.6.26 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12] [326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM-OAQ to include information from the notification of compliance status in the Part 70 permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient to IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart FFFFF, a description of the affected source and activities subject to the standard and a description of how the Permittee will meet the applicable requirements of the standard.
- (b) The significant permit modification application shall be submitted no later than August 22, 2005.
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

## Section D.7 Facility Operation Conditions

**Facility Description [326 IAC 2-7-5(15)]:** Four (4) Blast Furnaces, designated as Blast Furnace No.4, Blast Furnace No. 6, Blast Furnace No. 8 and Blast Furnace No. 13

- (a) Raw materials shipped to the ore yard identified as IAOYO366, are transferred to the Highline, identified as IAHL0307, from which raw material shipments and coke are sent through the Stockhouse.
- (b) The No. 13 Blast Furnace Stockhouse (sinter screening station), constructed in 1979, identified as IDSH0367, controlled by dust suppression, services Blast Furnaces No. 4, 6, 8 and 13.
- (c) No. 4 Blast Furnace, constructed in 1917, with a maximum capacity of 200 tons per hour, identified as IABF0308, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyreres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil (from on-site contractor when it meets specifications) at a rate of 70 gallons per minute and/or coal tar (when the on-site contractor tar centrifuge is not operating) at a rate of 70 gallons per minute into the No. 4 Blast Furnace.
  - (2) Three (3) No. 4 Blast Furnace Stoves identified as IAST0360, replaced in 1947, with a maximum heat input capacity of 200 MMBtu per hour each, combusting blast furnace gas (BFG) and natural gas, exhausting to the combustion stack IA6160.
  - (3) No. 4 Blast Furnace Casthouse, identified as IABF0308, constructed in 1917, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IA3177, exhausting to casthouse roof monitor IA6010.
  - (4) One (1) Slag Pit, identified as IASP0311, exhausting fugitive emissions.
- (d) No. 6 Blast Furnace, constructed in 1910, with a maximum capacity of 175 tons per hour, identified as IBBFO341, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyreres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil at a rate of 70 gallons per minute and/or coal tar at a rate 70 gallons per minute into the No. 6 Blast Furnace.
  - (2) Three (3) No. 6 Blast Furnace Stoves identified as IBST0361, replaced in 1997, with a maximum heat input capacity of 200 MMBtu per hour each, combusting Blast Furnace Gas (BFG) and natural gas exhausting to the combustion stack IB6168.
  - (3) No. 6 Blast Furnace Casthouse, identified as IBBF0341, constructed in 1910, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IB3178, exhausting to casthouse roof monitor IB6011.
  - (4) One (1) Slag Pit, identified as IBSP0335, exhausting fugitive emissions.

(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)]:** Four (4) Blast Furnaces, designated as Blast Furnace No.4, Blast Furnace No. 6, Blast Furnace No. 8 and Blast Furnace No. 13 (continued):

- (e) No. 8 Blast Furnace, constructed in 1909, with a maximum capacity of 160 tons per hour, identified as ICBFO354, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyreres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil at a rate of 70 gallons per minute and/or coal tar at a rate of 70 gallons per minute into the No. 8 Blast Furnace.
  - (2) Three (3) No. 8 Blast Furnace Stoves, identified as ICST0362, replaced in 1999, with a maximum heat input capacity of 200 MMBtu per hour each, combusting Blast Furnace Gas and natural gas, exhausting to the combustion stack IC6175.
  - (3) No. 8 Blast Furnace Casthouse, identified as ICBF0354, constructed in 1909, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IC3179, exhausting to cast house roof monitor IC6012.
  - (4) One (1) Slag Pit, identified as ICSP0363, exhausting fugitive emissions.
- (f) No. 13 Blast Furnace, constructed in 1974, with a maximum capacity of 450 tons per hour, identified as IDBF0369, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyreres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 80 tons per hour, oil at a rate of 150 gallons per minute and/or coal tar at a rate of 150 gallons per minute into the No.13 Blast Furnace.
  - (2) Four (4) No.13 Blast Furnace Stoves identified as IDST0359, constructed in 1974, with a maximum heat input capacity of 330 MMBtu per hour each, combusting blast furnace gas and natural gas, exhausting to the combustion stack ID6184
  - (3) No. 13 Blast Furnace Casthouse, identified as IDBF0369, constructed in 1974 with emissions controlled by a baghouse, identified as ID3185, exhausting to stack ID6187and fugitive emissions exhausting through the casthouse roof monitor ID6013;
  - (4) One (1) Slag Pit, identified as IDSP0371, exhausting fugitive emissions.
- (g) One (1) blast furnace gas distribution system consisting of instrumentation and valves designed to limit the maximum pressure through the distribution system by venting excess pressure to the three (3) bleeder stacks equipped with Flare No. 1 Identified as BG6073, constructed before 1920, Flare No. 2, identified as BG6074 constructed before 1920 and Flare No. 4 identified as BG6075, constructed in 1974.
- (h) One (1) iron beaching process, constructed prior to 1965, identified as IMIB0378, exhausting through stack IM6025.
- (i) One (1) transfer ladle maintenance operation, constructed prior to 1965, identified as, IMVM0375, exhausting through stack IM6025.

(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 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]**

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- (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, No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF. The Permittee shall comply with General Provisions requirements on and after May 20, 2003.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.7.19, National Emissions Standards for Hazardous Air pollutants from Integrated Iron and Steel Manufacturing - Emission Limitations for Blast Furnaces [40 CFR 63, Subpart FFFFF]

### **D.7.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Emission Limitations for Blast Furnaces [40 CFR 63, Subpart FFFFF]**

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- (a) The provisions of 40 CFR 63, Subpart FFFFF (National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing) apply to the affected sources. A copy of this rule is available on the US EPA Toxics Website at <http://www.epa.gov/tnn/atw/mcm/mcmpg/html>. The Permittee must comply with these requirements on and after May 22, 2006.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph(a) of this condition.
- (c) Terminology used in this section are defined in the CAA, 40 CFR 63, Section 63.2, and in 40 CFR 63.8105, and are applicable to the affected source.
- (d) The Permittee shall meet the each emission limitation in 40 CFR 63.7790 that applies to the casthouses and roof monitors.
- (e) The Permittee shall meet each operation and maintenance requirements in 40 CFR 63.7800 that applies to No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace and required capture and control equipment.
- (f) The Permittee shall develop and implement a written start-up, shutdown and malfunction plan in accordance with 40 CFR 63.7810(c). During periods of start-up, shutdown or malfunction, the Permittee shall operate in accordance with the plan and 40 CFR 63.7835(b).
- (g) The Permittee shall meet each monitoring requirement in 40 CFR 63.7830 that applies to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace and required capture and control equipment.
- (h) The Permittee shall meet each requirement in 40 CFR 63.7831 regarding installation, operation and maintenance of monitors for each monitor required by 40 CFR 63, Subpart FFFFF, that applies to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace and required capture and control equipment.

#### D.7.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]

Pursuant to 326 IAC 6-1-10.1(d)(36), PM<sub>10</sub> emissions shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Blast Furnace No. 4 stoves Stack IA6160 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Blast Furnace No. 6 stoves Stack IB6168 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Blast Furnace No. 8 stoves Stack IC6175 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Blast Furnace No. 13 stoves Stack ID6184 shall not exceed 0.029 pound per MMBtu of heat input and a total of 20.40 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Number 13 Blast Furnace Casthouse Baghouse Stack ID6187 shall not exceed 0.0090 pound per MMBtu of heat input and 38.57 pounds per hour.
- (f) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving”.

#### D.7.4 Lake County Particulate Emissions Limitations [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2 (a), particulate emissions from the iron beaching and ladle maintenance stack IM6025 shall not exceed three hundredths (0.03) grains per dry standard cubic feet (gr/dscf).

#### D.7.5 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(J)]

Pursuant to 326 IAC 7-4-1.1(c)(22)(J), the SO<sub>2</sub> emissions from the No.4 Blast Furnace Stoves IAST0360, No.6 Blast Furnace Stoves IBST0361, No.8 Blast Furnace Stoves ICST0362 and No.13 Blast Furnace Stoves IDST0359 shall comply with the following:

- (a) The SO<sub>2</sub> emissions from each Blast Furnace Nos. 4, 6, 8 and 13 stoves Stack IA6160, IB6168, IC6175 and ID6184 shall not exceed 0.002 pound per MMBtu of heat input.
- (b) Only two (2) out of three (3) stoves at each of the Blast Furnace Nos. 4, 6 and 8 shall fire fuel simultaneously.
- (c) Only three (3) out of four (4) stoves at Blast Furnace No.13 shall fire fuel simultaneously.

#### D.7.6 Carbon Monoxide (CO) Limitations

Pursuant to 326 IAC 9-1-2(2), no carbon monoxide shall be discharged from the No. 13 Blast Furnace IDBF0369, waste gas stream, unless the gas stream is 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 ground one hour Indiana ambient air quality value for carbon monoxide.

#### D.7.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan of this permit, is required for these facilities and any associated control devices.

## Compliance Determination Requirements

### D.7.8 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for Blast Furnaces [40 CFR 63.7810(a)][40 CFR 63.7825] [40 CFR 63.7826][40 CFR 63.7832]

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- (a) Pursuant to 40 CFR 63.7810(a), the Permittee shall be in compliance with the emission limitations and operation and maintenance requirements in Condition D.4.2 at all times, except during periods of start-up, shutdown and malfunction as defined in 40 CFR 63.2, which incorporated by reference in 326 IAC 20-1-3.
- (b) The Permittee shall demonstrate initial compliance with the emission limitations that apply to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace in accordance with 40 CFR 63.7825.
- (c) The Permittee shall demonstrate initial compliance with the operation and maintenance requirements that apply to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace, in accordance with 40 CFR 63.7826.
- (d) The Permittee shall monitor and collect data to demonstrate continuous compliance with 40 CFR 63, Subpart FFFFF, in accordance with 40 CFR 63.7832.
- (e) The Permittee shall demonstrate continuous compliance with the emissions limitations of 40 CFR 63, Subpart FFFFF that apply to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace and required capture and control equipment in accordance with 40 CFR 63.7833.
- (f) The Permittee shall demonstrate continuous compliance with the operation and maintenance requirements of 40 CFR 63, Subpart FFFFF that apply to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace and required capture and control equipment in accordance with 40 CFR 63.7834.

### D.7.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Testing Requirements for Blast Furnaces [40 CFR 63.7820 through 63.7824]

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- (a) The Permittee shall conduct performance tests and other initial compliance demonstrations that apply to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace in accordance with 40 CFR 63.7821.
- (b) The Permittee shall conduct subsequent performance tests that apply to the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace, in accordance with 40 CFR 63.7821.
- (c) The Permittee shall use the test methods and other procedures in 40 CFR 63.7822 when demonstrating compliance with the emission limits for particulate matter for the casthouses and roof monitors.
- (d) The Permittee shall use the test methods and other procedures in 40 CFR 63.7823 when demonstrating compliance with the opacity limits for the casthouses and roof monitors.
- (e) The Permittee shall use the test methods and other procedures in 40 CFR 63.7824 to establish and demonstrate initial compliance with operating limits for the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace and required capture and control equipment.

**D.7.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]**

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Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last valid compliance demonstration which ever is earlier, in order to demonstrate compliance with Condition D.7.3, the Permittee shall perform PM<sub>10</sub> testing on the Nos. 4, 6, 8 and 13 Blast Furnace Stoves Stacks IA6160, IB6168, IC6175 and ID6184 and No. 13 Blast Furnace Casthouse Baghouse Stack ID6187 using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

**D.7.11 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]**

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To demonstrate compliance with condition D.7.5, the Permittee shall perform the Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis in accordance with Section C - Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis of this permit.

**D.7.12 Emissions Controls**

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(a) Particulate Matter Control

- (1) The Nos. 4, 6 and 8 Blast Furnace natural gas iron oxide fume suppression systems IA3177, IB3178, IC3179, shall be in operation in order minimize particulate matter emissions as follows:
  - (A) The iron and slag runners at the No. 4 Blast Furnace shall be equipped with covers and natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.
  - (B) The iron and slag runners at the No. 6 Blast Furnace shall be equipped with covers and natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.
  - (C) The iron and slag runners at the No. 8 Blast Furnace shall be equipped with covers and natural gas fired lance for fume suppression during the cast to minimize particulate matter emissions.
  - (D) The runner covers can be removed during the tap hole drilling or closing operation and shall be promptly returned in position to cover the runners in the casthouse during a cast.
- (2) The No. 13 blast furnace Casthouse Baghouse ID3185 shall be in operation at all times the No.13 Blast Furnace Casthouse is in operation.

(b) Carbon Monoxide Emissions Control

The Blast Furnace Gas Distribution System Flare controls GC3629, GC3628 and GC3627 and bleeder stack Flare No. 1 BG6073, Flare No. 2 BG6074 and Flare No. 4 BG6075 shall be in operation and the pilot flame shall be present at all times when the No. 13 Blast Furnace, No. 4 Blast Furnace, No. 6 Blast Furnace and No. 8 Blast Furnace are in operation in order to minimize CO emissions.

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

**D.7.13 Visible Emissions Notations**

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- (a) Visible emission notations of the No. 13 Blast Furnace Casthouse Baghouse Stack ID6187 and iron beaching shall be performed once per shift 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

#### D.7.14 Parametric Monitoring

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The Permittee shall record the pressure drop across the No. 13 Blast Furnace Cast house baghouse ID3185, at least once per shift when the No.13 Blast Furnace Casthouse is in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 3.0 to 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan Implementation, Records, and Reports, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.7.15 Baghouse Inspection

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An inspection shall be performed each calendar quarter of the No. 13 Casthouse Baghouse ID3185. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.7.16 Broken or Failed Bag Detection

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit. If operations continue after bag failure is observed and it will be 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 or replaced. 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.



- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately 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).

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

#### **D.7.17 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Record Keeping Requirements for Blast Furnaces [40 CFR 63.7810(b)][40 CFR 63.7]**

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- (a) During the period between May 22, 2006 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, the Permittee shall maintain a log detailing the operation and maintenance of the No. 4 Blast Furnace, No. 6 Blast Furnace, No. 8 Blast Furnace and No. 13 Blast Furnace control equipment in accordance with 40 CFR 63.7810(b).
- (b) The Permittee shall keep the records required by 40 CFR 63.7842(a).
- (c) If a Continuous Opacity Monitoring System (COMS) is used to comply with an opacity standard, the Permittee shall keep the records specified in 40 CFR 63.7842(b).
- (d) The Permittee shall keep the records required in 40 CFR 63.6(h)(6) for visible observations in accordance with 40 CFR 63.7842(c).
- (e) The Permittee shall keep the records required in 40 CFR 63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to the No. 2 Q-BOP Shop in 40 CFR 63.7842(d).
- (f) The Permittee shall keep the records required by 40 CFR 63, FFFFF in accordance with 40 CFR 63.7843 and the General Record Keeping Requirements in Section C of this permit.

#### **D.7.18 General Record Keeping Requirements**

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- (a) To document compliance with Condition D.7.5, the Permittee shall maintain records in accordance with Section C – Sulfur Dioxide SO<sub>2</sub> Record Keeping (Entire Source).
- (b) To document compliance with Condition D.7.7 the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (c) To document compliance with Condition D.7.13, the Permittee shall maintain records of once per shift visible emission notations of the No. 13 Casthouse Baghouse Stack (ID6187) when in operation.
- (e) To document compliance with Condition D.7.14, the Permittee shall maintain the records of the once per shift total static pressure drop of the No. 13 Casthouse Baghouse during normal operation.
- (f) To document compliance with Conditions D.7.15, the Permittee shall maintain records of the results of the required inspections.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.19 National Emission Standards for Hazardous Air Pollutants from Integrated Iron and Steel Manufacturing- Reporting Requirements for Blast furnaces [40 CFR 63.7835][40 CFR 63.7640]

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- (a) The Permittee shall report each deviation in the Quarterly Deviation and Compliance Monitoring Report required by the Section C of this permit in accordance with 40 CFR 63.7835(a), 40 CFR 63.7841(d), 326 IAC 2-1.1-11 and 326 IAC 2-7-5(3).
- (b) The Permittee shall submit the notifications required by 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and 40 CFR 63.9(b) through (h) that apply by the dates specified in those sections in accordance with 40 CFR 63.7840(a).
- (c) The Permittee shall submit an initial notification no later than 120 days after May 20, 2003 in accordance with 40 CFR 63.9(b) and 40 CFR 63.7840. The initial notification shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The initial notification requires the certification by the “responsible official” as defined in 326 IAC 2-7-1(34).

- (d) The Permittee shall submit a notification or compliance status in accordance with 40 CFR 63.9(h)(2)(ii) and 40 CFR 63.7840(e).
  - (1) For each initial compliance demonstration that does not include a performance test, the Permittee shall submit the notification of compliance status before the close of business on the 30<sup>th</sup> calendar day following completion of the initial compliance demonstration.
  - (2) For each initial compliance demonstration that does include a performance test, the Permittee shall submit the notification of compliance status, including the performance test results, before the close of business on the 60<sup>th</sup> calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).
  - (3) The notification of compliance status shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The notification of compliance status requires the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (e) The Permittee shall submit semiannual compliance reports in accordance with 40 CFR 63.7841(a) and (b).
  - (f) If a start-up, shutdown or malfunction occurred during the semiannual reporting period that was not consistent with the start-up, shutdown or malfunction plan, the Permittee shall submit an immediate start-up, shutdown and malfunction report according to the requirements in 40 CFR 63.10(d)(5)(ii) and 40 CFR 63.7841(c).
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#### D.7.20 General Reporting Requirements

A quarterly summary report to document compliance with condition D.7.5 shall be submitted to IDEM in accordance with Section C – Sulfur Dioxide SO<sub>2</sub> Reporting Requirements (Entire Source). The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### D.7.21 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12] [326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM-OAQ to include information from the notification of compliance status in the Part 70 permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient to IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart FFFFF, a description of the affected source and activities subject to the standard and a description of how the Permittee will meet the applicable requirements of the standard.
- (b) The significant permit modification application shall be submitted no later than August 22, 2005.
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

## SECTION D.8

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Number 1 BOP Shop.

- (a) Two (2) Stations, identified as No. 1 and No. 2, Desulfurization Stations (originally constructed in 1981) and Hot Metal Transfer Stations (originally constructed in 1965), and replaced in 1998. Each station consists of Hot Metal Desulfurization, SSDS0201, Hot Metal Transfer Stations SSMT0203 and Slag Skimming SSSS0205. Hot metal from the blast furnaces is desulfurized and skimmed prior to charging in the steel making vessels. The maximum capacity of each station is 456 tons per hour. Each station is equipped with a local exhaust ventilation hood to capture emissions ducted to the Hot Metal Desulfurization/Skimming Stations Baghouse SS3100, equipped with a leak detection system, exhausting through stack SS6100. The desulfurization units are equipped with nitrogen suppression around where the desulfurization lance penetrates the hood hole.
- (b) One (1) Flux handling system, identified as SSFH0206, constructed in 1965, used for unloading, temporary storage, and transfer of fluxing agents to the steel making vessels, with a maximum capacity of 63 tons per hour. Emissions are controlled by No. 2, No. 3 and No. 4 bag houses SS3058, SS3059, and SS3053, all exhausting inside the building.
- (c) Basic Oxygen Process (BOP) Furnace operations, constructed in 1965, consisting of BOP vessel M, identified as SSVM0234, vessel E, identified as SSVE0235 and vessel D, identified as SSVD0236, with a maximum capacity of 250 tons per hour each. Emissions are controlled by an exhaust emission hood collection system, which exhausts emissions to the Gas Cleaning Systems SS3103 and SS3104.
- (d) Two (2) gas cleaning systems SS3103 and SS3104 that process the exhaust gases from the three (3) steel making vessels consisting of three (3) quenchers, two (2) scuppers, two (2) venturi scrubbers, two (2) separators, two (2) gas coolers fitted with internal mist eliminators and two (2) induced draft fans. Emissions exhaust through stacks SS6102 and SS6103.
- (e) CASbell/OB Lancing Stations M, D and E, include the controlled argon stirring process and blowing of oxygen to maintain temperature and chemistry. Constructed in 1981, Station M identified as SSCM0231, Station E identified as SSCE0232, and Station D identified as SSCD0233 with a maximum capacity of 250 tons per hour each. Emissions are controlled by the CASbell/OB Lancing baghouse SS3105, exhausting through Stack SS6104 and uncaptured emissions venting to the roof monitor SS6636.
- (f) One (1) Slingot Station, including the casting of bottom-poured steel ingots, identified as SSST0226, constructed in 1965, exhausting to the roof monitor SS6637.
- (g) Nine (9) natural gas fired Ladle Preheaters and Dryers identified as No. 1 through 9, with 1 through 4, constructed in 1983, 5 and 6 constructed in 1982 and 7 through 9 construction unknown. Six (6) Preheaters with a capacity of 14 MMBtu/hr each and three (3) Dryers with a capacity of 10 MMBtu/hr each, identified as SSLP0229, exhausting through Roof Monitor SS6637.
- (h) One (1) Continuous Caster, identified as SCSC0274, constructed in 1967, including a Tundish dryer with a heating capacity of 7.0 MMBtu/hr per hour, continuously casting steel slabs with a maximum capacity of 445 tons per hour. Emissions exhaust through Roof Monitor SS6638.
- (i) One (1) fugitive emissions mitigation system at the No. 1 BOP Shop, constructed in June 2002, consisting of a capture hood system ducted to a 99% efficient baghouse with a flow rate of 11,500 acfm.

(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 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]**

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- (a) The provisions of 40 CFR 63m Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected source, No.1 BOP Shop, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF. The Permittee shall comply with these General Provision requirements on and after May 20, 2003.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.8.22, National Emissions Standards for Hazardous Air pollutants from Integrated Iron and Steel Manufacturing - Emission Limitations for Basic Oxygen Process Furnace [40 CFR 63, Subpart FFFFF].

### **D.8.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Emission Limitations for Basic Oxygen Process Furnace (BOPF) Shops [40 CFR 63, Subpart FFFFF]**

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- (a) The provisions of 40 CFR 63, Subpart FFFFF (National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing) apply to the affected sources. A copy of this rule is available on the US EPA Toxics Website at <http://www.epa.gov/tnn/atw/mcm/mcmppg/html>. The Permittee must comply with these requirements on and after May 22, 2006.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph(a) of this condition.
- (c) Terminology used in this section is defined in the CAA, 40 CFR 63, Section 63.2, and in 40 CFR 63.8105, and are applicable to the affected source.
- (d) The Permittee shall meet the each emission limitation in 40 CFR 63.7790 that applies to the Hot Metal Desulfurization Stations, Hot Metal Transfer Stations, slag skimming units, BOPF vessels, CASbell/OB Lancing Stations and roof monitor.
- (e) The Permittee shall meet each operation and maintenance requirements in 40 CFR 63.7800 that applies to No. 1 BOP Shop and required capture and control equipment.
- (f) The Permittee shall develop and implement a written start-up, shutdown and malfunction plan in accordance with 40 CFR 63.7810(c). During periods of start-up, shutdown or malfunction, the Permittee shall operate in accordance with the plan and 40 CFR 63.7835(b).
- (g) The Permittee shall meet each monitoring requirement in 40 CFR 63.7830 that applies to the No. 1 BOP Shop and required capture and control equipment.
- (h) The Permittee shall meet each requirement in 40 CFR 63.7831 regarding installation, operation and maintenance of monitors for each monitor required by 40 CFR 63, Subpart FFFFF, that applies to the No. 1 BOP Shop and required capture and control equipment.

### **D.8.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]**

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Pursuant to 326 IAC 6-1-10.1(d)(36), PM<sub>10</sub> emissions from the Basic Oxygen Process Furnace 1 operations shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the No. 1 BOP Shop Hot Metal Desulfurization Baghouse Stack SS6100 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 15.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the No. 1 BOP Shop Gas Cleaning System Stacks SS6102 and SS6103 shall not exceed 0.011 grains per dry standard cubic foot of exhaust air and a total of 46.0 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the No. 1 BOP CASBell/OB Lancing Baghouse Stack SS6104 shall not exceed 0.0070 grains per dry standard cubic foot of exhaust air and 5.10 pounds per hour.
- (d) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving”.

D.8.4 Particulate Emissions Limitations [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a), the particulate emissions from the roof monitors SS6636, NS6637 and SS6638 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.8.5 Lake County Opacity Limitations [326 IAC 6-1-10.1(e)]

Pursuant to 326 IAC 6-1-10.1(e), the visible emissions from the Number 1 Basic Oxygen Furnace operations shall comply with the following:

- (a) Opacity from the Hot Metal Desulfurization baghouse Stack SS6100 shall not exceed five percent (5%) opacity, for any three (3) minute average.
- (b) Opacity from the No. 1 BOP Shop Roof Monitor SS6636 Operations shall not exceed twenty percent (20%) for any three (3) minute average.
- (c) Opacity from the BOP Furnace Operations Gas Cleaning System Stacks SS6102 and SS6103 shall not exceed twenty percent (20%), for any six (6) minute average.

D.8.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [325 IAC 7-4-1.1(a)]

Pursuant to 325 IAC 7-4-1.1(a), fossil fueled sources No. 1 BOP Shop ladle preheaters/dryers SSLP0229 shall burn natural gas only.

D.8.7 Hot Metal Processing Facility Limitations [326 IAC 7-4-1.1]

Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, the Permittee shall comply with the following:

- (a) The SO<sub>2</sub> emissions from the Hot Metal processing facilities No. 1 and No. 2 as measured during all hot metal processing activities shall not exceed 0.05 pound per ton of hot metal. Hot metal processing will include hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming.
- (b) The SO<sub>2</sub> emissions from the Hot Metal processing facilities No. 1 and No. 2 as measured during hot metal desulfurization reagent injection only shall not exceed 0.01 pound per ton of hot metal.

D.8.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any associated control devices.

## Compliance Determination Requirements

### D.8.9 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for BOPF Shops [40 CFR 63.7810(a)][40 CFR 63.7825] [40 CFR 63.7826][40 CFR 63.7832]

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- (a) Pursuant to 40 CFR 63.7810(a), the Permittee shall be in compliance with the emission limitations and operation and maintenance requirements in Condition D.2.2 at all times, except during periods of start-up, shutdown and malfunction as defined in 40 CFR 63.2, which incorporated by reference in 326 IAC 20-1-3.
- (b) The Permittee shall demonstrate initial compliance with the emission limitations that apply to the No.1 BOP Shop in accordance with 40 CFR 63.7825.
- (c) The Permittee shall demonstrate initial compliance with the operation and maintenance requirements that apply to the No. 1 BOP Shop, in accordance with 40 CFR 63.7826.
- (d) The Permittee shall monitor and collect data to demonstrate continuous compliance with 40 CFR 63, Subpart FFFFFF, in accordance with 40 CFR 63.7832.
- (e) The Permittee shall demonstrate continuous compliance with the emissions limitations of 40 CFR 63, Subpart FFFFFF that apply to the No. 1 BOP Shop and required capture and control equipment in accordance with 40 CFR 63.7833.
- (f) The Permittee shall demonstrate continuous compliance with the operation and maintenance requirements of 40 CFR 63, Subpart FFFFFF that apply to the No. 1 BOP Shop and required capture and control equipment in accordance with 40 CFR 63.7834.

### D.8.10 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing -Testing Requirements for BOPF Shops [40 CFR 63.7820 through 63.7824]

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- (a) The Permittee shall conduct performance tests and other initial compliance demonstrations that apply to the No. 1 BOP Shop, in accordance with 40 CFR 63.7820.
- (b) The Permittee shall conduct subsequent performance tests that apply to the No. 1 BOP Shop, in accordance with 40 CFR 63.7821.
- (c) The Permittee shall use the test methods and other procedures in 40 CFR 63.7822 when demonstrating compliance with the emission limits for particulate matter for the Hot Metal Desulfurization Stations, Hot Metal Transfer Stations, slag skimming units, BOPF vessels, CASBell/OB Lancing Stations and roof monitor.
- (d) The Permittee shall use the test methods and other procedures in 40 CFR 63.7823 when demonstrating compliance with the opacity limits for the Hot Metal Desulfurization Stations, Hot Metal Transfer Stations, slag skimming units, BOPF vessels, CASBell/OB Lancing Stations and roof monitor.
- (e) The Permittee shall use the test methods and other procedures in 40 CFR 63.7824 to establish and demonstrate initial compliance with operating limits for the No. 1 BOP Shop and required capture and control equipment.

### D.8.11 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

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- (a) Within thirty (30) months after issuance of this permit or five (5) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.8.3, the Permittee shall perform PM<sub>10</sub> testing on the No. 1 BOP Desulfurization Baghouse Stack SS6100, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

- (b) Within thirty (30) months after issuance of this permit or two and one-half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.8.3, the Permittee shall perform PM<sub>10</sub> testing on the No. 1 BOP Gas Cleaning Systems Stacks SS6102 and SS6103 using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

#### D.8.12 Testing Requirements

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- (a) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, Within thirty (30) months after issuance of this permit or two and one-half (2 ½) years from the date of the last valid compliance test whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform SO<sub>2</sub> emission testing on the No. 1 and No. 2 Hot Metal Desulfurization exhaust Stack SS6100 utilizing a test method approved by the Commissioner to show compliance with condition D.8.7(a), in accordance with Section C – Performance Testing. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration.
- (b) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, Within thirty (30) months after issuance of this permit or two and one-half (2 ½) years from the date of the last valid compliance test whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform SO<sub>2</sub> emission testing on the No. 1 and No. 2 Hot Metal Desulfurization exhaust Stack SS6100 utilizing a test method approved by the Commissioner to show compliance with condition D.8.7(b) in accordance with Section C – Performance Testing during the desulfurization reagent injection only. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration.
- (c) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, demonstration of compliance by performance testing per D.8.12(b) above shall not fulfill the compliance demonstration requirement for D.8.12(a).

#### D.8.13 Particulate Matter Control

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The control devices listed below shall be in operation for particulate emissions control at all times the associated process is in operation. The control devices are as follows:

- (a) The Hot Metal Desulfurization/Skimming Baghouse SS3100,
- (b) Flux Handling System Baghouses SS3053, SS3058 and SS3059,
- (c) BOP Gas Cleaning systems SS3103 and SS3104; and
- (d) CASBell/OB Lancing Station Baghouse SS3105.

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

#### D.8.14 Visible Emissions Notations

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- (a) Visible emission notations of the BOP Operations Gas Cleaning System stacks SS6102 and SS6103, and CASBell/OB Lancing Station Baghouse stack SS6104, shall be performed once per shift 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

#### D.8.15 Parametric Monitoring

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- (a) The Permittee shall record the total static pressure drop across the CASBell/OB Lancing Stations baghouse SS3105 used in conjunction with the CASBell/OB Lancing Stations, at least once per shift when the CASBell/OB Lancing Stations are in operation. When for any one reading, the pressure drop across the baghouses is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.
- (b) The Permittee shall record the total static pressure drop and flow rate of the scrubbers used in conjunction with the three (3) BOP vessels M, E, and D, at least once per shift when the three (3) BOP vessels M, E, and D units are in operation. When for any one reading, the pressure drop across the scrubbers is outside the normal range of 70.0 and 75.0 inches of water or the flow rate of the scrubbers is outside the range of 3000 and 4500 gallons per minute (gpm) or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A reading that is outside the above mentioned ranges for respective parameters is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.
- (c) The instruments used for determining the pressure and flow rate shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.8.16 Bag Leak Detection System

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The No. 1 BOP Hot Metal Desulfurization Baghouse SS3100 Bag Leak Detection System shall meet the following criteria:

- (a) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 0.0052 grains per actual cubic foot or less.
- (b) The bag leak detection system sensor must provide output of relative particulate matter loading.

- (c) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level established or verified during a stack test.
- (d) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation and adjustment of the system.
- (e) The initial adjustment of the system shall, at minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.
- (f) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse is in good operating condition.
- (g) The bag detector system sensors must be inspected monthly and build-up must be removed from probe and insulator.
- (h) The Permittee shall perform monthly QA checks including response tests and electronic drifts checks and opacity readings to confirm the operation of the baghouse is in order.
- (i) The bag leak detector must be installed downstream of the baghouse.
- (j) In the event of a bag leak detection system alarm is triggered, the Permittee shall follow steps in D.8.18 of this permit.
- (k) The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when excess emissions are observed. Failure to take response steps in accordance with Section C – Compliance Response Plan – Preparation, Implementation, Records and Reports, shall be considered a deviation of this permit.

#### D.8.17 Baghouse Inspections

An inspection shall be performed each calendar quarter of the bags in the CASBell/OB Lancing Stations Baghouse SS3105. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.8.18 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit. If operations continue after bag failure is observed and it will be 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 or replaced. 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.

- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately 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).

#### D.8.19 Scrubber Inspections

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An inspection shall be performed each calendar quarter of the scrubbers in the Number 1 BOP gas cleaning Systems SS3103 and SS3104. Inspections required by this condition shall not be performed in consecutive months.

#### D.8.20 Scrubber Failure Detection

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In the event that a scrubber failure has been observed:  
Failed units and the associated process will be shut down immediately 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).

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

#### D.8.21 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Record Keeping Requirements for BOPF Shops [40 CFR 63.7810(b)][40 CFR 63.7]

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- (a) During the period between May 22, 2006 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, the Permittee shall maintain a log detailing the operation and maintenance of the No. 1 BOP Shop control equipment in accordance with 40 CFR 63.7810(b).
- (b) The Permittee shall keep the records required by 40 CFR 63.7842(a).
- (c) If a Continuous Opacity Monitoring System (COMS) is used to comply with an opacity standard, the Permittee shall keep the records specified in 40 CFR 63.7842(b).
- (d) The Permittee shall keep the records required in 40 CFR 63.6(h)(6) for visible observations in accordance with 40 CFR 63.7842(c).
- (e) The Permittee shall keep the records required in 40 CFR 63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to the No. 1 BOP Shop in 40 CFR 63.7842(d).
- (f) The Permittee shall keep the records required by 40 CFR 63, FFFFF in accordance with 40 CFR 63.7843 and the General Record Keeping Requirements in Section C of this permit.

#### D.8.22 General Record Keeping Requirements

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- (a) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, and in order to document compliance with Condition D.8.6, the Permittee shall keep records of the monthly hot metal throughput for the No1 and No. 2 Hot Metal Desulfurization Stations.

- (d) To document compliance with Visible Emission Notations, Condition D.8.14, the Permittee shall maintain records of once per shift visible emission notations of the Hot Metal Desulfurization Baghouse Stack SS6101, the BOP Gas Cleaning System Stacks SS6102 and SS6103 and the CASBell/OB Lancing Station Baghouse Stacks SS6104 exhausts.
- (e) To document compliance with Condition D.8.15 pressure drop, CASBell/OB Lancing Station Baghouse SS3105 pressure drop, and No.1 BOP Gas Cleaning System scrubbers, pressure drop and flow rate during normal operation.
- (f) To document compliance with Conditions D.8.16, D.8.17 and D.8.19, the Permittee shall maintain records of the results of the required inspections.
- (g) To document compliance with Condition D.8.8, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.8.23 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Reporting Requirements for BOPF Shops [40 CFR 63.7835][40 CFR 63.7640]

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- (a) The Permittee shall report each deviation in the Quarterly Deviation and Compliance Monitoring Report required by the Section C of this permit in accordance with 40 CFR 63.7835(a), 40 CFR 63.7841(d), 326 IAC 2-1.1-11 and 326 IAC 2-7-5(3).
- (b) The Permittee shall submit a notification or compliance status in accordance with 40 CFR 63.9(h)(2)(ii) and 40 CFR 63.7840(e).
  - (1) For each initial compliance demonstration that does not include a performance test, the Permittee shall submit the notification of compliance status before the close of business on the 30<sup>th</sup> calendar day following completion of the initial compliance demonstration.
  - (2) For each initial compliance demonstration that does include a performance test, the Permittee shall submit the notification of compliance status, including the performance test results, before the close of business on the 60<sup>th</sup> calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).
  - (3) The notification of compliance status shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204
- (e) The Permittee shall submit semiannual compliance reports in accordance with 40 CFR 63.7841(a) and (b).
- (f) If a start-up, shutdown or malfunction occurred during the semiannual reporting period that was not consistent with the start-up, shutdown or malfunction plan, the Permittee shall submit an immediate start-up, shutdown and malfunction report according to the requirements in 40 CFR 63.10(d)(5)(ii) and 40 CFR 63.7841(c).

The notification of compliance status requires the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.8.24 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12] [326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM-OAQ to include information from the notification of compliance status in the Part 70 permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient to IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart FFFFF, a description of the affected source and activities subject to the standard and a description of how the Permittee will meet the applicable requirements of the standard.
- (b) The significant permit modification application shall be submitted no later than nine (9) months prior to May 22, 2006.
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

**SECTION D.9**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:** Number 2 Q-BOP Shop

- (a) Two (2) Hot Metal Desulfurization Stations, identified as NSDS0246, constructed in 1987, with a maximum capacity of 510 tons per hour. Emissions are controlled by a baghouse NS3115, exhausting through stack NS6144 and fugitive emissions exhausting through the roof monitor NS6631.
- (b) Two (2) Hot Metal Mixers, identified as NSMM0264 and two (2) Hot Metal Mixer Heaters, identified as NSMH0251, constructed in 1973, with a maximum capacity of 255 tons per hour. The natural gas fired mixer heaters have a heat input capacity of 10 MMBtu/hr each. Emissions from the mixers and heaters are controlled by the Desulfurization Station Baghouse NS3115, exhausting through stack NS6144 and the fugitive emissions through roof monitor NS6631.
- (c) Q-Basic Oxygen Process (BOP) operations, constructed in 1973, consisting of BOP vessel T identified as NSVT0268, vessel W, identified as NSVW0269, and vessel Y, identified as NSVY0270, each with a maximum capacity of 500 tons per hour. Primary emissions are controlled by two (2) Gas Cleaning Systems, secondary emissions are controlled by the Secondary Emissions Baghouse NS3124, exhausting to stack NS6123, and uncontrolled emissions exhaust through Roof Monitor NS6632.
- (d) Two (2) Gas Cleaning Systems, identified as NS3125 and NS3126 located in the gas cleaner facility, constructed in 1973, process the exhaust gases from the three (3) steel making vessels through three (3) quenchers, two (2) scuppers (tank like structures that remove excess quench water and solids from the gas stream), two (2) venturi scrubbers, two (2) separators, two (2) gas coolers with mist eliminators, two (2) induced draft fans and two (2) whirl vanes exhausting to Stacks NS6124 and NS6125.
- (e) Three (3) Flux Bins T, W, and Y, identified as NSVT0265, NSVW0266 and NSVY0267, constructed in 1973, with a maximum capacity of 141 tons per hour each. Emissions are controlled by five (5) baghouses. Three (3) Flux Transfer Baghouses at 166' level identified as NS3112, NS3108, and NS3107, exhausting through Stacks NS6623, NS6627 and NS6628 returning emissions back to the process; One (1) North Flux Handling Baghouse at 116' level identified as NS3109 and one (1) South Flux Handling Baghouse at 116' level identified as NS3110, exhausting through stacks NS6626 and NS6625. Uncontrolled emissions exhaust through the roof monitor NS6632.
- (f) Three (3) Ladle Metallurgical Facilities, LMF1 identified as NSL10293, LMF 2 identified as NSL20294 were constructed in 1986 and LMF 3 identified as NSL30295, constructed in 1991 with a maximum capacity of 348 tons per hour each. Emissions from LMF 1 and 2 are controlled by Nos. 1 and 2 Hot Fume Exhaust baghouses NS3135 and NS3136, exhausting through stacks NS6146 and NS6147. Material handling emissions at LMF 1 and 2 are controlled by baghouse NS3052, exhausting through stack NS6055. The LMF 3 Hot Fume Exhaust and Material Handling emissions are controlled by baghouse NS3137, exhausting to stack NS6148. All uncontrolled emissions exhaust through the roof monitor NS6634.

(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)]:** Number 2 Q-BOP Shop (continued):

- (g) One (1) R-H Vacuum Degasser, identified as NSVD0271, constructed in 1989, with a maximum capacity of 297.1 tons of steel per hour consisting of two (2) natural gas fired heaters, one (1) active and one (1) spare, identified as NSAB0276 and NSSB0275, with heat input capacities of 12 MMBtu per hour and 3 MMBtu per hour, respectively. Emissions are controlled with a flare that exhausts through Stack NS6145 and uncontrolled emissions exhaust through the Roof Monitor NS6634.
- (h) One (1) Slag Conditioning Station, constructed in 1997, with a maximum capacity of 297.1 tons of steel per hour.
  - (1) PM<sub>10</sub> emissions from the station are controlled by a baghouse exhausting through Stacks S-1 through S-6 and back to the process.
  - (2) PM<sub>10</sub> emissions from the material handling of slag conditioning and metallurgical agents are exhausted through the No. 1 Hot fume exhaust baghouse NS3135, exhausting through Stack NS6146.
- (i) One (1) Lime Dumping Station identified as NSFH0249, one (1) Daytank Lime Silo, identified as NSDS0250 and one (1) Desulfurization Lime and one (1) Mag Container identified as NSDS0245, constructed in 1971. Emissions are controlled by baghouses NS3122, NS3206 and NS3111, exhausting through the stacks NS6121, NS6629, and NS6624.
- (j) Three (3) Continuous Casting Lines, identified as Lines A, B and C identified as, NCCA0284, NCCB0285 and NCCC0286, with a total maximum capacity of 600 tons per hour combined. Lines A and B were constructed in 1986. Line C was constructed in 1991. Emissions from the continuous casters exhaust to the Roof Monitor NC6635. Emissions from Line C are discharged back to the slab spray water area for control.
- (k) Fourteen (14) natural gas fired Ladle Preheaters, identified as NBLD0262, eleven (11) with a heat input capacity of 9 MMBtu per hour each and three (3) with a heat input of 10 MMBtu per hour each. Emissions exhaust through Roof Monitor NS6633.
- (l) Two (2) Hot Metal Ladle Skimmers, identified as NSLS0248, constructed in 1973. Emissions exhaust through Roof Monitor NS6631.
- (m) Two (2) Skimming Stations, consisting of a skimmer, identified as NSS10292 and skimmer deslagger, identified as NSS20287. Both were constructed in 1973. Emissions exhaust through Roof Monitor NS6633.
- (n) One (1) Slingot Station, identified as NSST0290, constructed in 1986, with emissions exhaust through Roof Monitor NS6634.

(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 General Provisions Relating to Hazardous Air Pollutants (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 source, No. 2 Q-BOP Shop, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF. The Permittee shall comply with these General Provision requirements on and after May 20, 2003.

- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.9.23, National Emissions Standards for Hazardous Air pollutants from Integrated Iron and Steel Manufacturing - Emission Limitations for Basic Oxygen Process Furnace [40 CFR 63, Subpart FFFFF].

**D.9.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Emission Limitations for Basic Oxygen Process Furnace (BOPF) Shops [40 CFR 63, Subpart FFFFF]**

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- (a) The provisions of 40 CFR 63, Subpart FFFFF (National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing) apply to the affected sources. A copy of this rule is available on the US EPA Toxics Website at <http://www.epa.gov/tnn/atw/mcm/mcmpg/html>. The Permittee must comply with these requirements on and after May 22, 2006.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph(a) of this condition.
- (c) Terminology used in this section is defined in the CAA, 40 CFR 63, Section 63.2, and in 40 CFR 63.8105, and are applicable to the affected source.
- (d) The Permittee shall meet the each emission limitation in 40 CFR 63.7790 that applies to the Hot Metal Desulfurization Stations, BOPF vessels, LMFs, skimmer and skimming units and roof monitors.
- (e) The Permittee shall meet each operation and maintenance requirements in 40 CFR 63.7800 that applies to No. 2 Q-BOP Shop and required capture and control equipment.
- (f) The Permittee shall develop and implement a written start-up, shutdown and malfunction plan in accordance with 40 CFR 63.7810(c). During periods of start-up, shutdown or malfunction, the Permittee shall operate in accordance with the plan and 40 CFR 63.7835(b).
- (g) The Permittee shall meet each monitoring requirement in 40 CFR 63.7830 that applies to the No. 2 Q-BOP Shop and required capture and control equipment.
- (h) The Permittee shall meet each requirement in 40 CFR 63.7831 regarding installation, operation and maintenance of monitors for each monitor required by 40 CFR 63, Subpart FFFFF, that applies to the No. 2 Q-BOP Shop and required capture and control equipment.

**D.9.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]**

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Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the Number 2 Q-BOP Shop operations shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Number 2 Q-BOP Hot Metal Desulfurization Baghouse Stack NS6144 shall not exceed to 0.007 grains per dry standard cubic foot of exhaust air and 13.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Number 2 Q-BOP Secondary Emissions Baghouse stack NS6123 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 27.0 pounds per hour.



- (c) The PM<sub>10</sub> emissions from the Number 2 Q-BOP Gas Cleaning System stacks NS6124 and NS6125 shall not exceed 0.0153 grains per dry standard cubic foot of exhaust air and a total of 44.40 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Number 2 Q-BOP North Flux Handling System Baghouse stack NS6626 shall not exceed to 0.0070 grains per dry standard cubic foot of exhaust air and 1.80 pounds per hour.
- (e) The emissions from the Number 2 Q-BOP South Flux Handling System Baghouse stack NS6625, shall not exceed 0.0070 grains per dry standard cubic foot of exhaust air and 1.80 pounds per hour.
- (f) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Number 1 Hot Fume Exhaust Baghouse Stack NS6146 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 5.1 pounds per hour.
- (g) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Number 2 Hot Fume Exhaust Baghouse Stack NS6147 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 5.1 pounds per hour.
- (h) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Number 3 Hot Fume Exhaust and Material Handling Baghouse Stack NS6148 shall not exceed 0 .0070 grains per dry standard cubic foot of exhaust air and 2.70 pounds per hour.
- (i) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Numbers 1 and 2 Material Handling Baghouse Stack NS6055, shall not exceed 0 .007 grains per dry standard cubic foot of exhaust air and 3.83 pounds per hour.
- (j) The PM<sub>10</sub> emissions from the Number 2 Q-BOP RH-degasser Slag Conditioning Baghouse stacks S-1 through S-6, shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 5.49 pounds per hour.
- (k) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving.”

#### D.9.4 Particulate Emissions Limitations [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a), the particulate emissions from the roof monitors NS6631, NS6632, NS6633 and NS6634 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

#### D.9.5 Lake County Opacity Limitations [326 IAC 6-1-10.1(e)]

Pursuant to 326 IAC 6-1-10.1(e), the visible emissions from the Number 2 Q-BOP Shop operations shall be limited as follows:

- (a) Opacity from the Number 2 Q-BOP Hot Metal Desulfurization Stations Baghouse stack NS6144 shall not exceed five percent (5%) for any three (3) minute average.
- (b) Opacity from the Number 2 Q-BOP Gas Cleaning system stacks NS6124 and NS6125 shall not exceed twenty percent (20%) for any six (6) minute average.
- (c) Opacity from the Number 2 Q-BOP Roof Monitor NS 6632 shall not exceed twenty percent (20%) for any three (3) minute average.

- (d) Opacity from the Number 2 Q-BOP North and South Flux Handling System Baghouse stacks NS6626 and NS6625, (previously known as the flux handling line baghouse shall not exceed five percent (5%) for any three (3) minute average.
- (e) Opacity from the Number 2 Q-BOP Secondary Baghouse stack NS6123 shall not exceed five percent (5%) for any three (3) minute average.
- (f) Opacity from the Number 2 Q-BOP LMF No.1 Hot Fume Exhaust Baghouse stack NS6146 shall not exceed five percent (5%) for any three (3) minute average.
- (g) Opacity from the Number 2 Q-BOP LMF No.2 Hot Fume Exhaust Baghouse stack NS6147 shall not exceed five percent (5%) for any, three (3) minute average.

#### D.9.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]

Pursuant to 326 IAC 7-4-1.1(a), fossil fueled sources, the two (2) hot metal mixer Heaters NSMMH0251, Ladle Preheaters/dryers NBLD0262 and the RH Degasser heaters NSAB0276 and NSSB0275 shall burn natural gas only.

#### D.9.7 Hot Metal Processing Facility Limitations

Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, the Permittee shall comply with the following:

- (a) The SO<sub>2</sub> emissions from the Hot Metal processing facilities two hot metal desulfurization stations NSDS0246 and mixers NSMM0264 as measured during all hot metal processing activities shall not exceed 0.05 pound per ton of hot metal. Hot metal processing will include hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming.
- (b) The SO<sub>2</sub> emissions from the Hot Metal processing facilities: two hot metal desulfurization stations NSDS0246 and mixers NSMM0264 as measured during hot metal desulfurization reagent injection only shall not exceed 0.01 pound per ton of hot metal.

#### D.9.8 Carbon Monoxide (CO) Limitations 326 IAC 9-1-2

Pursuant to 326 IAC 9-1-2(2), no carbon monoxide shall be discharged from the Number 2 Q-BOP furnace waste gas stream, unless the gas stream is 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 ground one hour Indiana ambient air quality value for carbon monoxide.

#### D.9.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any associated control devices.

### **Compliance Determination Requirements**

#### D.9.10 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing - Compliance Requirements for BOPF Shops [40 CFR 63.7810(a)][40 CFR 63.7825] [40 CFR 63.7826][40 CFR 63.7832]

- (a) Pursuant to 40 CFR 63.7810(a), the Permittee shall be in compliance with the emission limitations and operation and maintenance requirements in Condition D.3.2 at all times, except during periods of start-up, shutdown and malfunction as defined in 40 CFR 63.2, which incorporated by reference in 326 IAC 20-1-3.
- (b) The Permittee shall demonstrate initial compliance with the emission limitations that apply to the No.2 Q-BOP Shop in accordance with 40 CFR 63.7825.

- (c) The Permittee shall demonstrate initial compliance with the operation and maintenance requirements that apply to the No. 2 Q-BOP Shop, in accordance with 40 CFR 63.7826.
- (d) The Permittee shall monitor and collect data to demonstrate continuous compliance with 40 CFR 63, Subpart FFFFF, in accordance with 40 CFR 63.7832.
- (e) The Permittee shall demonstrate continuous compliance with the emissions limitations of 40 CFR 63, Subpart FFFFF that apply to the No. 2 Q-BOP Shop and required capture and control equipment in accordance with 40 CFR 63.7833.
- (f) The Permittee shall demonstrate continuous compliance with the operation and maintenance requirements of 40 CFR 63, Subpart FFFFF that apply to the No. 2 Q-BOP Shop and required capture and control equipment in accordance with 40 CFR 63.7834.

D.9.11 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing -Testing Requirements [40 CFR 63.7820 through 63.7824]

- (a) The Permittee shall conduct performance tests and other initial compliance demonstrations that apply to the No. 2 Q-BOP Shop, in accordance with 40 CFR 63.7821.
- (b) The Permittee shall conduct subsequent performance tests that apply to the No. 2 Q-BOP Shop, in accordance with 40 CFR 63.7821.
- (c) The Permittee shall use the test methods and other procedures in 40 CFR 63.7822 when demonstrating compliance with the emission limits for particulate matter for the Hot Metal Desulfurization Stations, BOPF vessels, LMFs, skimmer and skimming units and roof monitors.
- (d) The Permittee shall use the test methods and other procedures in 40 CFR 63.7823 when demonstrating compliance with the opacity limits for the Hot Metal Desulfurization Stations, BOPF vessels, LMFs, skimmer and skimming units and roof monitors.
- (e) The Permittee shall use the test methods and other procedures in 40 CFR 63.7824 to establish and demonstrate initial compliance with operating limits for the No. 2 Q-BOP Shop and required capture and control equipment.

D.9.12 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) Within thirty (30) months after issuance of this permit or five (5) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.9.3, the Permittee shall perform PM<sub>10</sub> testing on the Number 2 Q-BOP Hot Metal Desulfurization Baghouse Stack NS6144 using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.
- (b) Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.9.3, the Permittee shall perform PM<sub>10</sub> testing on the Number 2 Q-BOP Gas Cleaning System stacks NS6124 and NS6125 using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.
- (c) Within thirty (30) months after issuance of this permit or two and one half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.9.3, the Permittee shall perform PM<sub>10</sub> testing on the Number 2 Q-BOP Secondary Emissions Baghouse Stack NS6123, using methods as

listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

#### D.9.13 Testing Requirements

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- (a) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, Within thirty (30) months after issuance of this permit or two and one-half (2 ½) years from the date of the last valid compliance test whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform SO<sub>2</sub> emission testing on the two hot metal desulfurization stations and mixers exhaust Stack NS6144, utilizing a test method approved by the Commissioner to show compliance with condition D.9.7(a), in accordance with Section C – Performance Testing. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration.
- (b) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, Within thirty (30) months after issuance of this permit or two and one-half (2 ½) years from the date of the last valid compliance test whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform SO<sub>2</sub> emission testing on the exhaust Stack NS6144 utilizing a test method approved by the Commissioner to show compliance with condition D.9.7(b) in accordance with Section C – Performance Testing during the desulfurization reagent injection only. . This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration.
- (c) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, demonstration of compliance by performance testing per D.9.14(b) above shall not fulfill the compliance demonstration requirement for D.9.14(a).

#### D.9.14 Particulate Matter Control

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Control devices listed below shall be in operation for particulate emissions control at all times the associated operations at the No. 2 Q-BOP Shop are in operation. The control devices are as follows:

- (a) Hot Metal Desulfurization Baghouse NS3115
- (b) Secondary Baghouse NS3124
- (c) The two (2) Gas Cleaning Systems NS3125 and NS3126
- (d) No.1 LMF Hot Fume Exhaust Baghouse NS3135
- (e) No. 2 LMF Hot Fume Exhaust Baghouse NS3136
- (f) No. 1 and No. 2 LMF Material Handling Baghouse NS3052
- (g) No. 3 LMF Hot Fume and Material Handling Baghouse NS3137

#### D.9.15 Carbon Monoxide (CO) Control

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The R-H Vacuum Degasser Flare NS6145, shall be in operation at all times the R-H Vacuum Degasser is in operation to control the CO emissions.

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

### D.9.16 Visible Emissions Notations

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- (a) Visible emission notations of the Desulfurization Stations baghouse stack NS6144, Secondary Baghouse stack NS6123 and No. 2 Q-BOP Gas Cleaning System Stacks NS6124 and NS6125, shall be performed once per shift 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) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

### D.9.17 Parametric Monitoring

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- (a) The Permittee shall record the total static pressure drop across the baghouse NS3124 used in conjunction with the secondary emissions from the three (3) Q-BOP vessels T, W, and Y, at least once a shift, when either of the three (3) Q-BOP vessels T, W, and Y, is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.
- (b) The Permittee shall record the total static pressure drop and flow rate of the No. 2 Q-BOP gas cleaning Systems scrubbers NS3125 and NS3126 used in conjunction with the 3 No.2 Q-BOP vessels at least once per shift when either the three (3) Q-BOP vessels T, W, and Y units is operating. When for any one reading, the pressure drop across the baghouses is outside the normal range of 50.0 and 70.0 inches of water or the flow rate is outside the normal range of 3,000 to 4,500 gallons per minute (gpm) or ranges established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A reading that is outside the above mentioned ranges for respective parameters is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.
- (c) The Permittee shall record the total static pressure drop across the Hot Metal Desulfurization baghouse NS3115 used in conjunction with the No, 2 Q-BOP Hot Metal Desulfurization stations and mixers, are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 9.0 inches of water or a range established during the latest stack test, the Permittee shall take

reasonable response steps in accordance with Section C- Compliance Response Plan - Preparation, Implementation, Records, and Reports. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit.

- (d) The instrument used for determining the pressure and flow rate shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.9.18 Baghouse Inspections

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An inspection shall be performed each calendar quarter of all bags controlling the No. 2 Q-BOP Hot Metal Desulfurization Baghouse NS3115 secondary emissions baghouse NS3124, No. 2 Q-BOP secondary emissions baghouse NS3124, No.1 LMF Hot Fume Exhaust Baghouse NS3135, No. 2 LMF Hot Fume Exhaust Baghouse NS3136, and No. 2 Q-BOP RH Vacuum Degasser Slag Conditioning Station Baghouse. Inspections required by this condition shall not be performed in consecutive months. All defective bags shall be replaced.

#### D.9.19 Broken or Failed Bag Detection

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In the event that bag failure has been observed:

- (a) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation of this permit. If operations continue after bag failure is observed and it will be 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 or replaced. 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.
- (b) For single compartment baghouses, if failure is indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions or the failure is indicated by an opacity violation, or if bag failure is determined by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows, then failed units and the associated process will be shut down immediately 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).

#### D.9.20 Scrubber Inspections

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An inspection shall be performed each calendar quarter of the Number 2 Q-BOP gas cleaning system scrubbers NS3125 and NS3126 controlling the three (3) Q-BOP vessels T, W, and Y. Inspections required by this condition shall not be performed in consecutive months.

#### D.9.21 Scrubber Failure Detection

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In the event that a scrubber failure has been observed:

Failed units and the associated process will be shut down immediately 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).

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

#### **D.9.22 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Record Keeping Requirements for BOPF Shops [40 CFR 63.7810(b)][40 CFR 63.7]**

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- (a) During the period between May 22, 2006 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, the Permittee shall maintain a log detailing the operation and maintenance of the No. 2 Q-BOP Shop control equipment in accordance with 40 CFR 63.7810(b).
- (b) The Permittee shall keep the records required by 40 CFR 63.7842(a).
- (c) If a Continuous Opacity Monitoring System (COMS) is used to comply with an opacity standard, the Permittee shall keep the records specified in 40 CFR 63.7842(b).
- (d) The Permittee shall keep the records required in 40 CFR 63.6(h)(6) for visible observations in accordance with 40 CFR 63.7842(c).
- (e) The Permittee shall keep the records required in 40 CFR 63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to the No. 2 Q-BOP Shop in 40 CFR 63.7842(d).
- (f) The Permittee shall keep the records required by 40 CFR 63, FFFFF in accordance with 40 CFR 63.7843 and the General Record Keeping Requirements in Section C of this permit.

#### **D.9.23 General Record Keeping Requirements**

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- (a) Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, and to document compliance with Condition D.9.7, the Permittee shall keep records of the monthly hot metal throughput for the No1 and No. 2 Hot Metal Desulfurization Stations.
- (b) To document compliance with Condition D.9.16 the Permittee shall maintain the records of once per shift visible emission notations of the Desulfurization Station Stack NS6144, Secondary Baghouse Stack NS6123, and No. 2 Q-BOP Gas Cleaning System Stacks NS6124 and NS6125 exhausts.
- (c) To document compliance with Condition D.9.17, the Permittee shall maintain records of the once per shift of the total static pressure drop of the secondary emissions baghouse NS3124, pressure drop and flow rate of the Gas cleaning systems scrubbers NS3125 and NS3126, and total static pressure drop of the Hot Metal Desulfurization baghouse NS3115, during normal operation.
- (d) To document compliance with Conditions D.9.18 and D.9.20 the Permittee shall maintain records of the results of the inspections required by conditions D.9.18 and D.9.20.
- (e) To document compliance with Condition D.9.9, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (h) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.9.24 National Emission Standards for Hazardous Air Pollutants (NESHAP) from Integrated Iron and Steel Manufacturing- Reporting Requirements for BOPF Shops [40 CFR 63.7835][40 CFR 63.7640]

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- (a) The Permittee shall report each deviation in the Quarterly Deviation and Compliance Monitoring Report required by the Section C of this permit in accordance with 40 CFR 63.7835(a), 40 CFR 63.7841(d), 326 IAC 2-1.1-11 and 326 IAC 2-7-5(3).
- (b) The Permittee shall submit the notifications required by 40 CFR 63.6(h)(4) and (5), 40 CFR 63.7(b) and (c), 40 CFR 63.8(e) and (f)(4) and 40 CFR 63.9(b) through (h) that apply by the dates specified in those sections in accordance with 40 CFR 63.7840(a).
- (c) The Permittee shall submit an initial notification no later than 120 days after May 20, 2003 in accordance with 40 CFR 63.9(b) and 40 CFR 63.7840. The initial notification shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The initial notification requires the certification by the “responsible official” as defined in 326 IAC 2-7-1(34).

- (d) The Permittee shall submit a notification or compliance status in accordance with 40 CFR 63.9(h)(2)(ii) and 40 CFR 63.7840(e).
  - (1) For each initial compliance demonstration that does not include a performance test, the Permittee shall submit the notification of compliance status before the close of business on the 30<sup>th</sup> calendar day following completion of the initial compliance demonstration.
  - (2) For each initial compliance demonstration that does include a performance test, the Permittee shall submit the notification of compliance status, including the performance test results, before the close of business on the 60<sup>th</sup> calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).
  - (3) The notification of compliance status shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

The notification of compliance status requires the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (e) The Permittee shall submit semiannual compliance reports in accordance with 40 CFR 63.7841(a) and (b).
- (f) If a start-up, shutdown or malfunction occurred during the semiannual reporting period that was not consistent with the start-up, shutdown or malfunction plan, the Permittee shall submit an immediate start-up, shutdown and malfunction report according to the requirements in 40 CFR 63.10(d)(5)(ii) and 40 CFR 63.7841(c).



D.9.25 Requirements to Submit a Significant Permit Application [326 IAC 2-7-12] [326 IAC 2-7-5]

The Permittee shall submit an application for a significant permit modification to IDEM-OAQ to Include information from the notification of compliance status in the Part 70 permit.

- (a) The significant permit modification application shall be consistent with 326 IAC 2-7-12, including information sufficient to IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart FFFFF, a description of the affected source and activities subject to the standard and a description of how the Permittee will meet the applicable requirements of the standard.
- (b) The significant permit modification application shall be submitted no later than nine (9) months prior to May 22, 2006.
- (c) The significant permit modification application shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue,  
Indianapolis, Indiana 46204

## SECTION D.10

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: One (1) Hot Rolling Mill

- (a) Four (4) reheat furnaces Nos. 1, 2, 3 and 4, identified as RMF10500, RMF20501, RMF30502 and RMF40503 commenced operation in 1967, with heat input capacity of 600 MMBtu per hour each. Each furnace is equipped to combust natural gas and fuel oil, with emissions exhausting through Stacks RM6500, RM6501, RM6502 and RM6503.
- (b) Two (2) waste heat boilers Nos. 1 and 2, identified as RB1B0508 and RB2B0509, commenced operation in 1967, with a heat input capacity of 226 MMBtu per hour each. The heat input from these boilers is derived from a combination of waste heat ducted from the reheat furnaces and the combustion of natural gas and coke oven gas. Emissions exhaust through Stacks HB6504, HB6505, RM6500, RM6501, RM6502 and RM6503, depending upon heat input configuration.
- (c) One (1) 84-inch Hot Strip Mill, identified as RMV00504, commenced operation in 1967, with a maximum capacity of 856 tons per hour, consisting of vertical and horizontal scale breakers, 5 roughing mills and 7-stand finishing mill with emissions exhausting through a Roof Monitor RM6630.

(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 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]

Pursuant to 326 IAC 6-1-10.1(d)(36), PM-10 emissions from the Reheat Furnaces Nos. 1, 2, 3 and 4 and Waste Heat Boilers Nos. 1 and 2 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the 84" Hot Strip Mill Reheat Furnaces Nos. 1, 2, 3 and 4, RM6500, RM6501, RM6502 and RM 6503 shall not exceed 0.017 pound per MMBtu of heat input and a total of 40.80 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the 84" Hot Strip Mill Waste Heat Boiler No. 1 Stack HB6504 shall not exceed 0.043 pound per MMBtu of heat input and 10.0 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the 84" Hot Strip Mill Waste Heat Boiler No. 2 Stack HB6505 shall not exceed 0.043 pound per MMBtu of heat input and 10.0 pounds per hour.
- (d) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving."

#### D.10.2 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(G)]

Pursuant to 326 IAC 7-4-1.1(c)(22)(G)(i-iv), SO<sub>2</sub> emissions from the Reheat Furnace Nos. 1, 2, 3 and 4, RMF10500, RMF20501, RMF30502 and RMF40503 and Waste Heat Boilers Nos. 1 and 2, RB1B0508 and RB2B0509 shall comply with the following:

- (a) Actual heat input derived from coke oven gas and fuel oil shall not exceed a total of four hundred seventy-seven (477) million Btu per hour for Waste Heat Boiler 1, RB1B0508 and Furnaces 1 and 2, RMF10500 and RMF20501 combined.
- (b) Actual heat input derived from coke oven gas and fuel oil shall not exceed a total of five hundred seven (507) million Btu per hour for Waste Heat Boiler 2 RB2B0509 and Furnaces 3 and 4 RMF30502 and RMF40503 combined.

- (c) The remainder of the actual heat input shall be obtained by burning natural gas.
- (d) Total actual heat input shall not exceed four hundred forty (440) million Btu per hour for each furnace, one hundred seventy (170) million Btu per hour for Waste Heat Boiler 1, RB1B0508, and two hundred (200) million Btu per hour for Waste Heat Boiler 2, RB2B0509.
- (e) The Waste Heat Boiler 1, RB1B0508 and Reheat Furnaces 1 and 2, RMF10500 and RMF20501 shall not exceed a total of 511.8 pounds per hour.
- (f) The Waste Heat Boiler 2, RB2B0509 and Reheat Furnaces 3 and 4, RMF30502 and RMF40503 shall not exceed a total of 543.9 pounds per hour total.
- (g) Fuel supplied to the reheat furnaces (coke oven gas, fuel oil, and natural gas) shall not result in a sulfur dioxide emission rate exceeding four hundred forty-seven thousandths (0.447) pounds per million Btu actual heat input.

#### D.10.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any associated control devices.

### **Compliance Determination Requirements**

#### D.10.4 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) Within thirty (30) months after issuance of this permit, or an alternative date as determined by OAQ, Compliance Data Section, in order to comply with condition D.1.1, the Permittee shall perform PM<sub>10</sub> testing on one of the Nos. 1, 2, 3 and 4 Continuous Reheat Furnace stacks RM6500, RM6501, RM6502 or RM6503, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration with no stack being tested in successive tests. All tests shall be performed in accordance with Section C - Performance Testing.
- (b) Within thirty (30) months after issuance of this permit, or an alternative date as determined by OAQ, Compliance Data Section, in order to comply with condition D.10.1, the Permittee shall perform PM<sub>10</sub> testing on one of the 84" Hot Strip Mill Waste Heat Boilers No. 1 Stack HB6504 and No. 2 Stack HB6505 using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

#### D.10.5 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]

In order to demonstrate compliance with condition D.10.2, the Permittee shall perform the Sulfur Dioxide Fuel Sampling and Analysis in accordance with Section C - Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis of this permit.

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

#### D.10.6 Record Keeping Requirements

- (a) To document compliance with Condition D.10.2, the Permittee shall maintain records in accordance with Section C- Sulfur Dioxide (SO<sub>2</sub>) Record Keeping Requirements (Entire Source).
- (b) To document compliance with Condition D.10.3, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.

- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

#### D.10.7 Reporting Requirements

A quarterly summary report to document compliance with condition D.10.2 shall be submitted to IDEM accordance with Section C – Sulfur Dioxide SO<sub>2</sub> Reporting Requirements (Entire Source). 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.11 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Two Continuous Pickle Lines

- (a) One (1) 84-inch Pickle Line, the North Continuous Pickle Line, identified as HWPO0625, constructed in 1968, with a maximum capacity of 314 tons per hour consisting of four (4) pickle tanks and two (2) rinse tanks (hot and cold). Emissions at this pickle line are controlled by a fume exhaust scrubber, HW3545 exhausting to stack HW6525.
- (b) One (1) 80-inch Pickle Line, the South Continuous Pickle Line, identified as HMPO0589, constructed in 1948, with a maximum capacity of 91 tons per hour, consisting of three (3) pickle tanks and two (2) rinse tanks (hot and cold). Emissions are controlled by a fume exhaust scrubber, HM3540, exhausting to stack HM6520.

(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 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated as 326 IAC 20-1, apply to the emission units described in this section except when otherwise specified in 40 CFR Part 63, Subpart CCC.

#### D.11.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants [40 CFR Part 63, Subpart CCC][40 CFR 63.1157]

Pursuant to 40 CFR Part 63, Subpart CCC, the 80-inch and 84-inch Hydrochloric Acid Pickling lines shall comply with the following requirements:

The Permittee shall not cause or allow to be discharged into the atmosphere from the affected pickling lines:

- (a) Any gases that contain HCl in a concentration in excess of 18 ppmv; or
- (b) HCL at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

#### D.11.3 National Emission Standard for Hazardous Air Pollutants (NESHAP) Maintenance Requirements [40 CFR 63.1160]

The Permittee shall comply with the operation and maintenance requirements of 40 CFR Part 63.6(e) (Subpart A, General Provisions) at the 80-inch and 84-inch Hydrochloric Acid Pickling lines. Additionally, the Permittee shall prepare an operation and maintenance plan for each emission control device to be implemented no later than the compliance date. The plan shall be incorporated by reference into the source's Part 70 Permit. All such plans must be consistent with good maintenance practices and, for a scrubber emission control device, must at a minimum:

- (a) Require monitoring and recording the pressure drop across the scrubber once per shift while the scrubber is operating in order to identify changes that may indicate a need for maintenance;
- (b) Require the manufacturer's recommended maintenance at the recommended intervals on fresh solvent pumps, recirculating pumps, discharge pumps, and other liquid pumps, in addition to exhaust system and scrubber fans and motors associated with those pumps and fans;

- (c) Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling;
- (d) Require an inspection of each scrubber at intervals of no less than 3 months with;
  - (1) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices;
  - (2) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components;
  - (3) Repair or replacement of droplet eliminator elements as needed;
  - (4) Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and
  - (5) Adjustment of damper settings for consistency with the required air flow.
- (e) If the scrubber is not equipped with a view port or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used.
- (f) The Permittee shall initiate procedures for corrective action within 1 working day of detection of an operating problem and complete all corrective actions as soon as practicable. Procedures to be initiated are the applicable actions that are specified in the maintenance plan. Failure to initiate or provide appropriate repair, replacement, or other corrective action is a violation of the maintenance requirement.
- (g) The Permittee shall maintain a record of each inspection, including each item identified in (d) above, that is signed by the responsible maintenance official and that shows the date of each inspection, the problem identified, a description of the repair, replacement, or other corrective action taken, and the date of the repair, replacement, or other corrective action taken.

**D.11.4 National Emission Standards for Hazardous Air Pollutants (NESHAP) Operational and Equipment Standards [40 CFR 63.1159, Subpart CCC] Hydrochloric acid storage vessels.**

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Pursuant to 40 CFR 63.1159, Subpart CCC, the Permittee of an affected vessel shall provide and operate, except during loading and unloading of acid, a closed-vent system for each vessel. Loading and unloading shall be conducted either through enclosed lines or each point where the acid is exposed to the atmosphere shall be equipped with a local fume capture system, ventilated through an air pollution control device.

**D.11.5 Particulate (PM) Limitation [326 IAC 6-1-2]**

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Pursuant to 326 IAC 6-1-2, the pickle lines shall not discharge to the atmosphere any gases which contain particulate in excess of 0.03 grains per dry standard cubic feet.

**Compliance Determination Requirements**

**D.11.6 Testing Requirements [40 CFR 63.1161, Subpart CCC]**

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- (a) The Permittee shall conduct a performance test for each process or emission control device to determine and demonstrate compliance with the applicable emission limitation according to the requirements of 40 CFR 63.7 (Subpart A, General Provisions). These tests shall meet the following minimum requirements:
  - (1) Following approval of the site-specific test plan, the Permittee shall conduct a performance test for each process or control device to either measure simultaneously the mass flows of HCl at the inlet and the outlet of the control

- device (to determine compliance with the applicable collection efficiency standard) or measure the concentration of HCL in gases exiting the process or the emission control device (to determine compliance with the applicable emission concentration standards).
- (2) Compliance with the applicable concentration standard or collection efficiency standard shall be determined by the average of three consecutive runs or by the average of any three of four consecutive runs. Each run shall be conducted under conditions representative of normal process operations.
  - (3) Compliance is achieved if either the average collection efficiency as determined by the HCL mass flows at the control device inlet and outlet is greater than or equal to the applicable collection efficiency standard, or the average measured concentration of HCL exiting the process or the emission control device is less than or equal to the applicable emission concentration standard.
- (b) During the performance test for each emission control device, the Permittee using a wet scrubber to achieve compliance shall establish site-specific operating parameter values for the minimum scrubber makeup water flow rate and, for scrubbers that operate with recirculation the minimum recirculation water flow rate. During the emission test, each operating parameter must be monitored continuously and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes. The Permittee shall determine the operating parameter monitoring values as in the averages of the values recorded during any of the runs for which results are used to establish the emission concentration or collection efficiency per 40 CFR 63.1161 (a)(2). A Permittee may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, a Permittee may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.
  - (c) Conduct performance tests to measure the HCl flows at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in 40 CFR 63.1161. Performance tests shall be conducted according to an alternative schedule approved by IDEM, OAQ every two and one half (2 ½) years or twice per Part 70 Operating Permit term. If any performance test shows that the HCl emission limitation is being exceeded, the Permittee is in violation of the emission limit.
  - (d) Pursuant to 40 CFR 63.1163(d), the Permittee of an affected source shall notify IDEM, OAQ in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, to allow IDEM, OAQ to review and approve the site-specific test plan required under 40 CFR 63.7(c), and, if requested by IDEM, OAQ, to have an observer present during the test.
  - (e) The following test methods from Appendix A of 40 CFR 60 shall be used to determine compliance under 40 CFR 63.1157(a);
    - (1) Method 1, to determine the number and location of sampling points, with the exception that no sampling traverse point shall be within one inch of the stack or duct wall;
    - (2) Method 2, to determine gas velocity and volumetric flow rate;
    - (3) Method 3, to determine the molecular weight of the stack gas;
    - (4) Method 4, to determine the moisture content of the stack gas; and
    - (5) Method 26A, "Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources – Isokinetic Method," to determine the HCl mass flows at the

inlet and outlet of a control device or the concentration of HCl discharged to the atmosphere. If compliance with a collection efficiency standard is being demonstrated, inlet and outlet measurements shall be performed simultaneously. The minimum sampling time for each run shall be 60 minutes and the minimum sample volume 0.85 dry standard cubic meters (dscm) [30 dry standard cubic feet (dscf)]. The concentration of HCl shall be calculated for each run as follows:  $C_{\text{HCL(ppmv)}} = 0.659 C_{\text{HCL(mg/dscm)}}$ , where  $C_{\text{(ppmv)}}$  is concentration in ppmv and  $C_{\text{(mg/dscm)}}$  is concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.

- (6) The Permittee may use equivalent alternative measurement methods approved by U.S. EPA.

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

#### **D.11.7 National Emission Standards for Hazardous Air Pollutants (NESHAP) Monitoring Requirements [40 CFR 63.1162, Subpart CCC]**

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The Permittee shall:

- (a) In addition to conducting performance tests, if a wet scrubber is used as the emission control device, install, operate and maintain systems for the measurement and recording of the scrubber makeup water flow rate and, if required, recirculation water flow rate. These flow rates must be monitored continuously and recorded at least once per shift while the scrubber is operating. Operation of the wet scrubber with excursions of scrubber makeup water flow rate and recirculation water flow rate less than the minimum values established during the performance test or tests will require initiation of corrective action as specified by the maintenance requirements in 40 CFR Part 63.1160(b)(2).
- (b) Failure to record each of the operating parameters in 40 CFR Part 63.1162(a)(2) is a violation of the monitoring requirements of 40 CFR Part 63, Subpart CCC.
- (c) Each monitoring device shall be certified by the manufacturer to be accurate to within 5 percent and shall be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.
- (d) The Permittee may develop and implement alternative monitoring requirements subject to approval by U.S. EPA. .

#### **D.11.8 Monitoring Requirements [40 CFR 63.1162]**

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Pursuant to 40 CFR 63.1162, the Permittee of an affected hydrochloric acid storage vessel shall inspect each vessel semiannually to determine that the closed vent system and either the air pollution control device or the enclosed loading and unloading line, whichever is applicable, are installed and operating when required.

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

#### **D.11.9 Record Keeping Requirements [40 CFR Part 63.1165]**

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- (a) To document compliance with Conditions D.11.2 and D.11.3, the Permittee shall maintain the following records pursuant to 40 CFR 63.1165:
- (1) The Permittee as required by 40 CFR 63.10(b)(2) (Subpart A, General Provisions), shall maintain general records for 5 years from the date of each record of:
- (A) The occurrence and duration of each startup, shutdown, or malfunction of operation;



- (B) The occurrence and duration of each malfunction of the air pollution control equipment;
  - (C) All maintenance performed on the air pollution control equipment;
  - (D) Actions taken during periods of startup, shutdown, and malfunction and the dates of such actions when these actions are different from the procedures specified in the startup, shutdown, and malfunction plan;
  - (E) All information necessary to demonstrate conformance with the startup shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction are consistent with the procedures specified in such plan. This information can be recorded in a checklist or similar form. (See 40 CFR 63.10(b)(2)(v))
  - (F) All required measurements needed to demonstrate compliance with the standard and to support data that the source is required to report, including but not limited to, performance test measurements (including initial and any subsequent performance tests) and measurements as may be necessary to determine the conditions of the initial test or subsequent tests.
  - (G) All results of initial or subsequent performance tests;
  - (H) If the Permittee has been granted a waiver from record keeping or reporting requirements under 40 CFR Part 63.10(f), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements;
  - (I) If the Permittee has been granted a waiver from the initial performance test under 40 CFR Part 63.7(h), a copy of the full request and approval or disapproval;
  - (J) All documentation supporting initial notifications and notifications of compliance status required by 40 CFR Part 63.9; and
  - (K) Records of any applicability determination, including supporting analyses.
- (2) In addition to the general records required by 40 CFR 63.1165(a), the Permittee shall maintain records for 5 years from the date of each record of:
- (A) Scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used;
  - (B) Calibration and manufacturer certification that monitoring devices are accurate to within 5 percent;
  - (C) Each maintenance inspection and repair, replacement, or other corrective action; and
- (3) The Permittee shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by IDEM, OAQ for the life of the affected source or until the source is no longer subject to these provisions 40 CFR Part 63 Subpart CCC. In addition, if the operation and maintenance plan is revised, the Permittee shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by IDEM, OAQ for a period of 5 years after each revision to the plan.

- (b) General records and 40 CFR Part 63, Subpart CCC records, for the most recent 2 years of operation must be maintained on site. Records for the 3 previous years may be maintained off site.
- (c) All records shall be maintained in accordance with Section C – General Record Keeping Requirements.

#### D.11.10 Reporting Requirements [40 CFR 63.1164]

- (a) Pursuant to 40 CFR 63.10(d)(2), the Permittee of an affected source shall report the results of any performance test as part of the notification of compliance status required in 40 CFR 63.1163.
- (b) The Permittee of an affected source who is required to submit progress reports under 40 CFR 63.6(i), shall submit such reports to IDEM, OAQ by the dates specified in the written extension of compliance.
- (c) Pursuant to 40 CFR 63.6(e) the Permittee of an affected source is required to operate and maintain each affected emission source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the level required by the standard at all time, including during any period of startup, shutdown, or malfunction. Malfunctions must be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan.
  - (1) Pursuant to 40 CFR 63.6(e)(3), the Permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, or malfunction, and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard.
  - (2) Pursuant to 40 CFR 63.10(d)(5)(I) if actions taken by a Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown, and malfunction plan, the Permittee shall state such information in a semiannual report. The report, to be certified by the Permittee or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30<sup>th</sup> day following the end of each calendar half; and
  - (3) Any time an action taken by a Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the Permittee shall comply with all requirements of 40 CFR 63.10(d)(5)(ii).
- (d) All reports shall be submitted in accordance with Section C - General Reporting Requirements.
- (e) The reports submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.12 FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: The Sheet Products Division

- (a) North Sheet Mill
- (1) One (1) 5-Stand Cold Reduction Mill, identified as H5M50637, constructed in 1964, with a maximum capacity of 380 tons per hour, consisting of 5 Mill Stands. Emissions are controlled by fume collection H53547, exhausting to Stack H56527.
  - (2) Twenty-six (26) 4-Stack "Box" Annealing Furnaces and 50 bases, identified as HTAF0813 through HTAF0838, constructed in 1964, with a heat input capacity of 10 MMBtu per hour each. These furnaces are direct fired with emissions exhausting through vent pipes HT6530 through HT6555.
  - (3) One (1) 80-inch temper mill, constructed in 1964, with a maximum capacity of 213 tons per hour, exhausting fugitive emissions.
  - (4) One (1) 80-inch Recoil Line, constructed in 1964, with a maximum capacity 114 tons per hour exhausting fugitive emissions.
- (b) South Sheet Mill
- (1) Seventeen (17) 8-Stack "Box" Annealing furnaces and 66 bases, identified as HXBA0560 through HXBA0576, constructed in 1948. Eleven (11) furnaces have a heat input capacity of 15 MMBtu per hour each and the remaining six (6) are rated at 18 MMBtu per hour each. Emissions from these furnaces exhaust through the Roof Monitor HX6003.
  - (2) One (1) 2-Stand Temper Mill, identified as H2M00579, constructed in 1974, with a maximum capacity of 89 tons per hour. Emissions exhaust through the Roof Monitor H26004.
  - (3) One (1) No. 6 East Galvanizing Line, constructed in 1962, with a maximum capacity of 48 tons an hour, with one (1) annealing furnace identified as H6F10527 with a heat input of 45 MMBtu per hour and emissions through stack H66516. Also, contains one (1) Galvanneal Furnace identified as HF20529 with a heat input capacity of 20.0 MMBtu per hour and emissions exhausting through Roof Monitor H66006.
  - (4) Two (2) hydrogen atmosphere batch annealing furnaces, with a total heat input capacity of 10.26 MMBtu per hour, constructed in 1997, consisting of three (3) fixed bases and two (2) movable cooling hoods.
  - (5) One (1) 84-inch Hot Roll Temper Mill, constructed in 1967, with a maximum capacity of 124 tons per hour, exhausting fugitive emissions.
  - (6) One (1) coil prep line, constructed in 1968, with a maximum capacity of 73 tons per hour, exhausting fugitive emissions

(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)]:** The Sheet Products Division (continued):

(c) Electro-galvanizing Line (EGL)

- (1) One (1) Electro-galvanizing Line (EGL), with one HCl pickle tank, No.1 Pickle tank, identified as HET20685, a cleaner section, a plating section and associated scrubber, with a maximum capacity of 60.5 tons per hour. Emissions from the Pickle Section are controlled by a fume scrubber HE3583 exhausting through stack HE6563. The single sided process for this coating line was constructed in 1977 and was modified in 1993 to a double sided process for coating.
- (2) One (1) natural gas fired Boiler No. 1 in the EGL Boiler House, identified as HBB10675, constructed in 1978 and modified in 2001, with a heat input capacity of 39.147 MMBtu per hour, exhausting through stack HB6559.

(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 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]**

The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the No. 1 Boiler in the EGL Boiler House except when otherwise specified in 40 CFR Part 60, Subpart Dc.

**D.12.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]**

Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the EGL Boiler House shall not exceed 0.0033 pounds per MMBtu of heat input and a total of 0.13 pound per hour.

**D.12.3 Particulate Emissions Limitations [326 IAC 6-1-2(a)]**

Pursuant to 326 IAC 6-1-2(a), the particulate emissions from the North Sheet Mill: 5-Stand Cold Reduction Mill Stack H56527 and the South Sheet Mill: No. 6 East Galvanize Line Stack H66516 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

**D.12.4 Nitrogen Dioxide (NO<sub>x</sub>) Emissions Offset Limitations [326 IAC 2-3]**

Pursuant to CP 089-8606-00121, issued October 20, 1997, the natural gas usage in the two (2) hydrogen atmosphere batch annealing furnaces shall not exceed 37.2 million cubic feet (MMCF) per 12 consecutive month period with compliance demonstrated at the end of each month. This production limitation is equivalent to NO<sub>x</sub> emissions of 2.64 tons per 12 consecutive month period with compliance demonstrated at the end of each month. Therefore, the Emission Offset rule, 326 IAC 2-3, does not apply.

**D.12.5 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]**

Pursuant to 326 IAC 7-4-1.1(a), fossil fueled sources 4-stack "Box" Annealing Furnace. 8-Stack "Box" Annealing Furnaces, the No. 6 Galvanize Line and Galvaneal Furnaces and Hydrogen Batch Anneal Furnaces shall burn natural gas only.

**D.12.6 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants [326 IAC 20-1][40 CFR 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, as designated by 40 CFR 63.7506(b). The Permittee must comply with these requirements on and after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15

does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.12.9, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD-Notification Requirements.

**D.12.7 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]**

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- (a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD on and after three years after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.
- (c) The following emissions units comprise the affected source for the large gaseous fuel subcategory: EGL Boiler No. 1.
- (d) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.

**D.12.8 Preventative Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for EGL Boiler House Boiler No.1.

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

**D.12.9 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]**

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- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.9(b)(2) that apply to the affected sources for the large gaseous fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
  - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than 120 days after the effective date of 40 CFR 63, Subpart DDDDD as required by 40 CFR 63.7545(b)
  - (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
  - (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
    - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).

- (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable
- (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (b) The notifications required by paragraph (a) shall be submitted to:  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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

#### D.12.10 Record Keeping Requirements

- (a) Pursuant to Minor Source Modification 089-14424-00121, issued August 2, 2001 (modified by MSM 089-15694-00121, issued August 21, 2002), and 40 CFR 60.40c the Permittee shall record and maintain monthly records of the amounts of fuel combusted for the one (1) 39.147 million British thermal units per hour (MMBtu/hr) natural gas fired boiler, identified as EGL-1 boiler.
- (b) Pursuant to Minor Source Modification 089-8606-00121, issued October 20, 1997 and to document compliance with Condition D.12.4 the Permittee shall maintain monthly records of the natural gas usage in the two (2) hydrogen atmosphere batch annealing furnaces.
- (c) To document compliance with Condition D.12.5, the Permittee shall maintain records of any additional inspections required by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping requirements of this permit.

#### D.12.11 Reporting Requirements

- (a) Pursuant to Minor Source Modification 089-8606-00121, issued October 20, 1997 and to document compliance with Condition D.12.4 the Permittee shall submit within thirty (30) days of the end of each calendar quarter, the hydrogen atmosphere batch annealing furnaces monthly natural gas usage, using the reporting form located at the end of this permit or its equivalent.
- (b) All reports shall be submitted in accordance with Section C - General Reporting Requirements of this permit.
- (c) The reports submitted by the Permittee do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.13 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:** The Tin Division is comprised of the following:

- (a) One (1) 6-Stand Cold Reduction Mill, identified as TRM00709, constructed in 1967, with a maximum capacity of 150 tons per hour. Emissions are controlled by a mist eliminator TR3600, exhausting to stack TR6575.
- (b) One (1) cleaning line, identified as No. 7 Cleaning Line, constructed in 1967, with a maximum capacity of 80 tons per hour. Emissions are controlled by a fume scrubber exhausting to a stack.
- (c) Two (2) Annealing Lines, No. 1 and No. 2, each containing an annealing furnace, identified as T1AF0794 and T2AF0799, No.1 constructed in 1950 and No. 2 constructed in 1959, with a maximum heat input capacities of 32 and 35 MMBtu per hour, respectively. Emissions exhaust to stacks T16609 and T26610. The No. 2 Continuous Anneal Line has a cleaning section with emissions collected in a fume scrubber exhausting through a stack.
- (d) Five (5) 4-Stack “Box” Annealing Furnaces and 12 bases, identified as TXAF0765 through TXAF0769, constructed in 1968. All furnaces have a heat input of 10.5 MMBtu per hour each. Emissions exhaust to stacks TX6580 through TX6584.
- (e) One (1) 48-inch Temper Mill, constructed in 1958, with a maximum capacity of 150 tons per hour, exhausting fugitive emissions. This unit has a dust filter that exhausts inside the building.
- (f) One (1) Double Reduction Mill with two (2) mill stands, identified as TDMO0742, constructed in 1963, with a maximum capacity of 75 tons per hour. Emissions are controlled by a mist eliminator D3603, exhausting to stack TD6595.
- (g) One (1) No.1 Tin Free Steel Line (TFS), constructed in 1950, with a maximum capacity of 24 tons per hour. The TFS line contains a Chemical Treatment Tank, identified as TFT10752, exhausting to Roof Monitor, TF6661 and a Chemical treatment rinse, identified as TFR00753, exhausting to stack TF6597.
- (h) One (1) No. 5 Electrolytic Tinning Line 5 (ETL), constructed in 1957, and with a maximum capacity of 50 tons per hour. The No. 5 ETL contains a Plating and Chemical Treatment Tank, identified as TFR00777, with emissions exhausting through Roof Monitor T56071.
- (i) One (1) No. 6 Electrolytic Tinning Line (6 ETL), constructed in 1966, with a maximum capacity of 120 tons per hour. The 6 ETL also contains a Plating and Chemical Treatment Tank, identified as T6H00786, exhausting through Roof Monitor T56071.
- (j) One (1) Tin Anode Caster, constructed in 1965, with a maximum capacity of 0.57 tons per hour.
- (k) One (1) Tin Mill Recoil and inspection Line, constructed in 1967, with a maximum capacity of 14.8 tons per hour.

(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 Emissions Limitations [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a), the particulate emissions shall not exceed three-hundredths (0.03) grain per dry standard cubic feet (gr/dscf) from the following:

- (a) 6-Stand Cold Reduction Mill Stack TR6575,

- (b) One (1) Double Reduction Mill Stack TD6595, and
- (c) No. 1 Tin Free Steel Line Chemical Treatment Rinse Stack TF6597.

D.13.2 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(a)]

Pursuant to 326 IAC 7-4-1.1(a), fossil fueled sources, the No.1 Annealing Furnace (T1AF0794), No.2 Annealing Furnace T2AF0799 and the 4-Stack "Box" Annealing Furnaces TXAF0765 through TXAF0769 shall burn natural gas only.



## **SECTION D.14 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:** One (1) Boiler House No. 4 , comprised of the following:

- (a) Two (2) Boilers, No. 1 and No. 2, identified as O4B10459 and O4B20460, constructed in 1967, equipped to combust natural gas, blast furnace gas and fuel oil, with a maximum heat input of 500 MMBtu per hour each, exhausting through Stacks O46268 and O46269, respectively.
- (b) One (1) Boiler, No. 3, identified as O4B30461, constructed in 1967, equipped to combust blast furnace gas and natural gas, with a maximum heat input of 500 MMBtu per hour, exhausting through Stack O46270.

(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 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants [326 IAC 20-1][40 CFR 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, as designated by 40 CFR 63.7506(b). The Permittee must comply with these requirements on and after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.14.8, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD-Notification Requirements.

#### **D.14.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]**

- (a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD on and after three years after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.
- (c) The following emissions units comprise the affected source for the large gaseous fuel subcategory: No. 4 Boiler House Boilers Nos. 1, 2 and 3.
- (d) The following emissions units comprise the affected source for the limited use liquid fuel subcategory: No. 4 Boiler House Boilers Nos. 1 and 2.
- (e) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.

**D.14.3 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1(d)(36)]**

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Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the No. 4 Boiler House Boilers Nos. 1, 2 and 3 Stacks O46268, O46269 and O46270 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Number 4 Boiler House Boilers, when one or two boilers are operating shall not exceed 0.054 pounds per MMBtu of heat input and a total of 54.1 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Number 4 Boiler House Boilers, when three boilers are operating shall not exceed 0.036 pounds per MMBtu of heat input and a total of 54.1 pounds per hour.
- (c) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes “stack serving”, and to each stack of multiple stacks serving multiple facilities when the facility description notes “each stack serving”.

**D.14.4 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(B)]**

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Pursuant to 326 IAC 7-4-1.1(c)(22)(B), the SO<sub>2</sub> emissions from the No. 4 Boiler House Boilers Nos. 1, 2 and 3 Stacks O46268, O46269 and O46270 shall not exceed 0.219 pounds per MMBtu of heat input.

**D.14.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

**Compliance Determination Requirements**

**D.14.6 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]**

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Within twelve (12) months after issuance of this permit or two and one-half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.14.4, the Permittee shall perform PM<sub>10</sub> testing on the No. 4 Boiler House Boilers when all three boilers are operating, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

**D.14.7 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]**

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Pursuant to 326 IAC 7-4-1.1(d), and in order to comply with conditions D.14.4, the Permittee shall follow the Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis protocol in Section C - Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis of this permit.

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

**D.14.8 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]**

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- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.9(b)(2) that apply to the affected sources for the large gaseous fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
  - (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than 120 days after the effective date of 40 CFR 63, Subpart DDDDD as required by 40 CFR 63.7545(b).

- (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
- (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
  - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).
  - (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable
- (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (b) The notifications required by paragraph (a) shall be submitted to:  
Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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

#### D.14.9 Record Keeping Requirements

- (a) To document compliance with Condition D.14.4, the Permittee shall maintain records in accordance with Section C- Sulfur Dioxide (SO<sub>2</sub>) Record Keeping Requirements (Entire Source).
- (b) To document compliance with Conditions D.14.5, the Permittee shall maintain records of the additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping requirements, of this permit.

#### D.14.10 Reporting Requirements

A quarterly summary report to document compliance with conditions D.14.4 shall be submitted in accordance with Section C – Sulfur Dioxide Reporting Requirements (Entire Source) of this permit. This report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### D.14.11 Natural Gas Fired Boiler Certification

A semi-annual certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the Natural Gas Fired Boiler Certification form located at the end of this permit, or its equivalent, for the Number 4 Boiler House Boilers Nos. 1, 2 and 3, five hundred (500) million British Thermal unit per hour (MMBtu/hr) natural gas fired boilers. This report shall be submitted in accordance with Section C- General Reporting Requirements of this permit. This report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.15 FACILITY OPERATION CONDITIONS

**Facility Description [326 IAC 2-7-5(15)]:** One (1) TurboBlower Boiler House (TBBH), comprised of the following:

- (a) Three (3) Boilers, No. 1, No. 2 and No. 3, identified as OTB10462, OTB20463 and OTB30464, constructed in 1948, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a maximum heat input of 400 MMBtu per hour each, exhausting through Stacks OT6271, OT6272 and OT6273, respectively.
- (b) One (1) Boiler, No. 4A, identified as OTB40465, constructed in 1990, with a maximum heat input of 244 MMBtu per hour when combusting natural gas and coke oven gas. Emissions exhaust through Stack OT6274, with NO<sub>x</sub> emissions monitored by a Predictive Emissions Monitoring System (PEMS).
- (c) One (1) Boiler No. 5, identified as OTB50466, constructed in 1958, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a maximum heat input of 450 MMBtu per hour, exhausting through Stack OT6275.
- (d) One (1) boiler, No. 6, identified as OTB60467, constructed prior to August 17, 1971, equipped to combust blast furnace gas and natural gas, with a maximum heat input capacity of 710 MMBtu per hour, exhausting through Stack OT6276.

(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.15.1 General Provisions Relating to Hazardous Air Pollutants (HAPs) [326 IAC 20-1][40 CFR 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, as designated by 40 CFR 63.7506(b). The Permittee must comply with these requirements on and after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition. The permit shield applies to Condition D.15.11, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63, Subpart DDDDD-Notification Requirements.

#### D.15.2 National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR 63, Subpart DDDDD]

- (a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters, (40 CFR 63, Subpart DDDDD), as of the effective date of 40 CFR 63, Subpart DDDDD. Pursuant to this rule, the Permittee must comply with 40 CFR 63, Subpart DDDDD on and after three years after the effective date of 40 CFR 63, Subpart DDDDD.
- (b) Since the applicable requirements associated with the compliance options are not included and specifically identified in this permit, the permit shield authorized by the B section of this permit in the condition titled Permit Shield, and set out in 326 IAC 2-7-15 does not apply to paragraph (a) of this condition.

- (c) The following emissions units comprise the affected source for the large gaseous fuel subcategory: Turboblower Boiler House Boilers Nos. 1, 2, 3, 4A, 5, and 6.
- (d) The following emissions units comprise the affected source for the limited liquid fuel subcategory Turboblower Boiler House Boilers Nos. 1, 2, 3 and 5.
- (e) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.

**D.15.3 General Provisions Relating to New Source Performance Standards (NSPS) [326 IAC 12-1][40 CFR 60, Subpart A]**

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The provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR Part 60, Subpart D.

**D.15.4 New Source Performance Standards (NSPS) Particulate Limitations [326 IAC 12] [40 CFR 60, Subpart D]**

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Pursuant to Minor Source Modification 089-10160-00121, issued January 13, 2000, 326 IAC 12 and 40 CFR 60.40 through 60.49, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971), Particulate matter (PM) emissions from TBBH Boiler No. 6 shall not exceed the following:

- (a) One-tenth (0.10) lb/MMBtu derived from fossil fuel combustion; and
- (b) Twenty percent (20%) opacity except for one six-minute period per hour of not more than 27% opacity.

**D.15.5 Lake County PM<sub>10</sub> Emissions Requirements [326 IAC 6-1-10.1(d)(36)]**

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Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3, 4A, 5 and 6 Stacks OT6271, OT6272, OT6273, OT6274, OT6275 and OT6276 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3 and 5: OT6271, OT6272, OT6273 and OT6275, when four boilers are operating, shall not exceed 0.037 pound per MMBtu of heat input each and a total of 61.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3 and 5: OT6271, OT6272, OT6273 and OT6275, when three boilers are operating, shall not exceed 0.050 pound per MMBtu of heat input each and a total of 61.0 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3 and 5: OT6271, OT6272, OT6273 and OT6275, when one or two boilers are operating, shall not exceed 0.074 pound per MMBtu of heat input each and a total of 61.0 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the TBBH Boiler No.4A stack OT6274, the PM<sub>10</sub> emissions shall not exceed 0.012 pound per MMBtu of heat input each and 2.9 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the TBBH Boiler No. 6 Stack OT6276, shall not exceed 0.00.039 pound per MMBtu of heat input and 27.80 pounds per hour.
- (f) Each emission limit applies to one (1) stack serving one (1) facility unless otherwise noted. The emissions limitations apply to one (1) stack serving the multiple units specified when the facility description notes "stack serving", and to each stack of multiple stacks serving multiple facilities when the facility description notes "each stack serving".

D.15.6 Sulfur Dioxide (SO<sub>2</sub>) Limitations [326 IAC 7-4-1.1(c)(22)(A)]

Pursuant to 326 IAC 7-4-1.1(c)(22), the SO<sub>2</sub> emissions from each of the TBBH Boilers Nos. 1, 2, 3, 4A, 5 and 6 Stacks OT6271, OT6272, OT6273, OT6274, OT6275 and OT6276 shall not exceed 0.269 pounds per MMBtu of heat input.

D.15.7 PSD Nitrogen Oxides (NO<sub>x</sub>) Emission Offset Limitations [326 IAC 2-2] [326 IAC 2-3]

Pursuant to the Minor Source Modification 089-10160-00121 issued, January 13, 2000, 326 IAC 2-2 and 326 IAC 2-3, the NO<sub>x</sub> emissions for the TBBH Boiler No. 6 Stack OT6276 shall be limited to the following:

- (a) Boiler No. 6 NO<sub>x</sub> emissions shall not exceed 0.14 pounds of NO<sub>x</sub> per MMBtu of heat input.
- (b) When combusting natural gas the usage shall be limited to 1,059.7 million cubic feet (MMCF) per twelve (12) consecutive month period with compliance demonstrated at the end of each month. Compliance with this limit will also preclude the Permittee from the requirement to install a continuous emissions monitor (CEM) for NO<sub>x</sub>.
- (c) Blast furnace gas and natural gas shall be the only fuels combusted in TBBH Boiler No. 6, unless the Permittee receives prior approval from IDEM, OAQ to combust coke oven gas or fuel oil.
- (d) These limitations will ensure that the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) do not apply.

D.15.8 Nitrogen Oxides (NO<sub>x</sub>) Limitations [326 IAC 12][40 CFR Part 60, Subpart D and Subpart Db]

- (a) Pursuant to CP-089-9568-00121, issued September 21, 1998, 40 CFR 60 Subpart Db, and 326 IAC 12 (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units), NO<sub>x</sub> emissions from the TBBH Boiler No. 4A Stack OT6274 shall comply with the following:
  - (1) The NO<sub>x</sub> emissions shall not exceed 0.20 lb/MMBtu when the boiler is burning natural gas only. This is equivalent to 48.8 pounds per hour at a maximum heat input rate of 244 MMBtu per hour.
  - (2) This limit shall not apply in situations where the boiler is burning any combination of natural gas and coke oven gas or coke oven gas alone.
- (b) Pursuant to Minor Source Modification 089-10160-00121, issued January 13, 2000, 326 IAC 12 and 40 CFR 60, Subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction or modification is Commenced After August 17, 1971), NO<sub>x</sub> emissions from the Turboblower Boiler House (TBBH) Boiler No. 6 shall comply with the following:
  - (1) NO<sub>x</sub> emissions from TBBH Boiler No. 6 Stack OT6276 shall not exceed 0.20 pound per MMBtu of heat input, when the boiler is burning natural gas only.
  - (2) This limit shall not apply in situations when the boiler is burning any combination of natural gas and blast furnace gas or blast furnace gas alone.

D.15.9 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

## Compliance Determination Requirements

### D.15.10 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

- (a) Within twelve (12) months after issuance of this permit or two and one-half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.15.5, the Permittee shall perform PM<sub>10</sub> testing on the Turboblower Boiler House Boilers Nos. 1, 2, 3 and 5 when all four boilers are operating, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.
- (b) Within twelve (12) months after issuance of this permit or two and one-half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.15.5, the Permittee shall perform PM<sub>10</sub> testing on the Turboblower Boiler House Boiler No. 4A when burning natural gas alone and when burning coke oven gas alone, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.
- (c) Within twelve (12) months after issuance of this permit or two and one-half (2 ½) years from the date of the last compliance test which ever is earlier, in order to demonstrate compliance with Condition D.15.5, the Permittee shall perform PM<sub>10</sub> testing on the Turboblower Boiler House Boiler No. 6 when burning blast furnace gas on the main burners alone and natural gas on the pilots, using methods as listed in 326 IAC 6-1-10.1(f) or other methods approved by the Commissioner. This test shall be repeated at least once every two and one-half (2 ½) years from the date of this valid compliance demonstration. All tests shall be performed in accordance with Section C - Performance Testing.

### D.15.11 Sulfur Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis [326 IAC 7-4-1.1(d)]

The Permittee shall perform Dioxide (SO<sub>2</sub>) Fuel Sampling and Analysis in accordance with Section C - Sulfur Dioxide (SO<sub>2</sub>) Sampling and Analysis, in order to demonstrate compliance with Condition D.15.6.

### D.15.12 Nitrogen Oxide (NO<sub>x</sub>) Emissions Monitoring [40 CFR 60.48b]

- (a) Pursuant to 40 CFR 60.48b, the Permittee shall calibrate, maintain, and operate all necessary Predictive emission monitoring systems (PEMS) and Boiler No. 4A stack OT6274.
- (b) The Permittee shall comply with Conditions D.15.8(a) on an on going basis using the Predictive Emissions Monitoring System (PEMS) to predict NO<sub>x</sub> emission rates by monitoring the steam generating operating conditions as specified in a plan submitted to and approved by IDEM, OAQ, pursuant to 40 CFR 60.49b(c).
- (c) In the event that a breakdown of a predictive emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (d) The Permittee shall have replacement parts such as flow meters or oxygen meters on hand, in the event a malfunction of the PEMS occurs.
- (e) The Permittee shall develop and implement a quality control (QC) and quality assurance (QA) program pursuant to the requirements of 40 CFR Part 60 Appendix F.

- (f) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to the requirements of 40 CFR Part 60, Appendix F.

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

#### **D.15.13 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters - Notification Requirements [40 CFR 63, Subpart DDDDD]**

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- (a) Pursuant to 40 CFR 63.7545, the Permittee shall submit the notifications in 40 CFR 63.9(b)(2) that apply to the affected sources for the large gaseous fuel subcategory and chosen compliance methods by the dates specified. These notifications include, but are not limited to, the following:
- (1) An Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than 120 days after the effective date of 40 CFR 63, Subpart DDDDD as required by 40 CFR 63.7545(b).
  - (2) If required to conduct a performance test, a notification of intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required by 40 CFR 63.7(b)(1) and 40 CFR 63.7545(d).
  - (3) If required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), a Notification of Compliance Status containing the information required by 40 CFR 63.9(h)(2)(ii) in accordance with 40 CFR 62.7545(e).
    - (A) For each initial compliance demonstration, the Permittee shall submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 CFR 63.10(d)(2).
    - (B) The Notification of Compliance Status shall contain the items in 40 CFR 63.7545(e)(1) through (9), as applicable
  - (4) If required to use a continuous monitoring system (CMS), notification of a performance evaluation, if required, as specified in 40 CFR 63.9(g), by the date of submission of the notification of intent to conduct a performance test.
- (b) The notifications required by paragraph (a) shall be submitted to:

Indiana Department of Environmental Management  
Compliance Data Section, Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

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

#### **D.15.14 Record Keeping Requirements**

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- (a) To document compliance with Condition D.15.6, the Permittee shall maintain records in accordance with Section C- Sulfur Dioxide (SO<sub>2</sub>) Record Keeping Requirements (Entire Source).
- (b) To document compliance with condition D.15.7(b), the Permittee shall maintain records of the TBBH Boiler No. 6, natural gas usage.



- (e) To document compliance with TBBH Boilers 4A, condition D.15.7(a), the Permittee shall maintain records required under 40 CFR 60.49b(c)(f)(g) and (h), as applicable.
- (f) To document compliance with Conditions D.15.9, the Permittee shall maintain records of the additional inspections prescribed by the Preventive Maintenance Plan.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping requirements of this permit.

#### D.15.15 Reporting Requirements

- (a) To document compliance with conditions D.15.6, the Permittee shall submit a quarterly summary report as specified in Section C – Sulfur Dioxide Reporting (Entire Source) in this permit.
- (b) To document compliance with condition D.15.7(b), the Permittee shall submit a report within thirty (30) days of the end of the quarter containing the TBBH Boiler No. 6, natural gas usage using the form at the end of this permit or its equivalent.
- (c) If the Permittee elects to document compliance with condition D.15.8, either by monitoring of steam generating unit operating conditions or by operating a predictive emission monitoring system (PEMS) for NO<sub>x</sub> emissions, the Permittee shall also submit reports as required under 40 CFR 60.49b(b)(h) and (q).
- (d) The Permittee shall submit an excess emissions report, as required by 40 CFR 60.7(c), within thirty (30) days of the end of each quarter. In addition to submitting this report to the addresses listed in Section C - General Reporting Requirements
- (e) All reports shall be submitted in accordance with Section C - General Reporting Requirements of this permit.
- (f) These reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### D.15.16 Natural Gas Fired Boiler Certification

A semi-annual certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the Natural Gas Fired Boiler Certification form located at the end of this permit, or its equivalent, for each of the TBBH Boilers Nos. 1, 2 and 3, with heat input of four hundred (400) million British Thermal unit per hour (MMBtu/hr), No. 4A, with a heat input of two hundred forty-four (244) MMBtu/hr, No. 5, with a heat input of four hundred fifty (450) MMBtu/hr and No. 6 with heat input of five hundred (500) million British Thermal unit per hour (MMBtu/hr) natural gas fired boilers. This report shall be submitted in accordance with Section C – General reporting Requirements. This report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.16 FACILITY OPERATION CONDITIONS

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

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
- (j) Crusher Fugitive Emissions
- (k) Material Processing Facility Building Openings
- (l) Dust Handling Equipment

(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 Particulate Matter (PM) Lake County Fugitive Dust Limits [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), compliance with the opacity limits specified in Section C-Fugitive Dust Emissions shall be achieved by controlling fugitive particulate matter emissions according to the revised Fugitive Dust Control Plan (FDCP) submitted January 28, 2000. If it is determined that the control procedures specified in the FDCP do not demonstrate compliance with the fugitive emission limitations, IDEM, OAQ may request that the FDCP be revised and submitted for approval.

### Compliance Determination Requirements

#### D.16.2 Particulate Matter (PM)

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), opacity from the activities shall be determined as follows:

- (a) Paved Roads and Parking Lots  
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:
  - (1) The first will be taken at the time of emission generation.
  - (2) The second will be taken five (5) seconds later.

- (3) The third will 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) **Unpaved Roads and Parking**  
The fugitive particulate emissions from unpaved roads shall be controlled by the implementation of a work program and work practice under the fugitive dust control plan.
- (c) **Batch Transfer**  
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.
- (d) **Continuous Transfer**  
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.
- (e) **Wind Erosion from Storage Piles**  
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. The 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 such periods, the company 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.
- (f) **Wind Erosion from Exposed Areas**  
The opacity shall be determined using 40 CFR 60, Appendix A, Method 9.
- (g) **Material Transported by Truck or Rail**  
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. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the in plant transportation requirement.
- (h) **Material Transported by Front End Loader or Skip Hoist**  
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:
- (1) The first will be taken at the time of emission generation.
- (2) The second will be taken five (5) seconds later.
- (3) The third will 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.

- (i) Material Processing Limitations
  - (1) Compliance with stack opacity limitations from material processing facilities shall be determined using 40 CFR 60, Appendix A, Method 9.
  - (2) Compliance with the opacity limitations for fugitive particulate emissions from material processing equipment, except from a crusher at which a capture system is not used, shall be determined using 40 CFR 60, Appendix A, Method 9.
  - (3) Compliance with the opacity limitations for fugitive particulate emissions from a crusher at which a capture system is not used, shall be determined using 40 CFR 60, Appendix A, Method 9.
  - (4) Compliance with the opacity limitations for fugitive particulate emissions from a building enclosing all or part of the material processing equipment shall be determined using 40 CFR 60, Appendix A, Method 22.
  - (5) Compliance with the opacity limitations for fugitive particulate emissions from building vents shall be determined using 40 CFR 60, Appendix A, Method 5 or 17 or 40 CFR 60, Appendix A, Method 9.
- (j) Dust Handling Equipment  
Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.

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

#### **D.16.3 Record Keeping Requirements**

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements):

- (a) The source shall keep the following documentation to show compliance with each of its control measures and control practices:
  - (1) A map or diagram showing the location of all emission sources controlled, including the location, identification, length, and width of roadways.
  - (2) For each application of water or chemical solution to roadways, the following shall be recorded:
    - (A) The name and location of the roadway controlled
    - (B) Application rate
    - (C) Time of each application
    - (D) Width of each application
    - (E) Identification of each method of application
    - (F) Total quantity of water or chemical used for each application

- (G) For each application of chemical solution, the concentration and identity of the chemical
- (H) The material data safety sheets for each chemical
- (3) For application of physical or chemical control agents not covered by clause (B), the following:
  - (A) The name of the agent
  - (B) Location of application
  - (C) Application rate
  - (D) Total quantity of agent used
  - (E) If diluted, percent of concentration
  - (F) The material data safety sheets for each chemical
- (4) A log recording incidents when control measures were not used and a statement of explanation.
- (5) Copies of all records required by this section shall be submitted to the department within twenty (20) working days of a written request by the department.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.16.4 Reporting Requirements

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- (a) Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), a quarterly report shall be submitted to the department stating the following:
  - (1) The dates any required control measures were not implemented
  - (2) A listing of those control measures
  - (3) The reasons that the control measures were not implemented
  - (4) Any corrective action taken
- (b) These reports shall be submitted within thirty (30) calendar days following the end of each calendar quarter and in accordance with Section C – General Reporting Requirements of this permit.

## SECTION D.17

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]: Specifically regulated insignificant activities:

- (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-5][326 IAC 8-3-6][326 IAC 8-9-1]
- (2) Cleaners and solvents characterized as follows:
  - (A) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100EF) or;
  - (B) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.[326 IAC 8-3-5][326 IAC 8-3-6][326 IAC 8-9-1]
- (3) The following VOC and HAP storage containers:
  - (A) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
  - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids. ][326 IAC 8-9-1]
- (4) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6-1-2(a)]
- (5) Any of the following structural steel and bridge fabrication activities:
  - (A) Cutting 200,000 linear feet or less of one inch (10) plate or equivalent.
  - (B) Using 80 tons or less of welding consumables. [326 IAC 6-1-2(a)]
- (6) Conveyors as follows:
  - (A) Covered conveyor for coal or coke conveying of less than or equal to 360 tons per day; [326 IAC 6-1-2(a)]
- (7) Coal bunker and coal scale exhausts and associated dust collector vents. [326 IAC 6-1-2(a)]
- (8) 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 6-1-2(a)]
- (9) Vents from ash transport systems not operated at positive pressure. [326 IAC 6-1-2(a)]

(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.17.1 Particulate Emissions Limitation [326 IAC 6-1-2(a)]

Pursuant to 326 IAC 6-1-2(a), the particulate emissions from the brazing equipment, cutting torches, soldering equipment, welding equipment, structural steel and bridge fabrication, covered conveyors, dust collector vents associated with coal bunkers and coal scale, grinding

and machining operations and ash transport systems vents shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

D.17.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2 (Cold Cleaner Degreaser Operation)]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations existing as of January 1, 1980, located, Lake County and which have the 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.
- (h) repair solvent leaks immediately, or shut down the degreaser;
- (i) Store waste solvent only in covered containers and not dispose of waste solvent or transfer to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere

D.17.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)]

- (a) Pursuant to 326 IAC 8-3-5(a), the owner or operator of a cold cleaner degreaser without remote solvent reservoirs existing as of July 1, 1990, located in Clark, Elkhart, Floyd, Lake, Marion, Porter or St. Joseph counties 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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°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<sup>o</sup>C) (one hundred degrees Fahrenheit (100<sup>o</sup>F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9<sup>o</sup>C) (one hundred twenty degrees Fahrenheit (120<sup>o</sup>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 or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.17.6 Volatile Organic Compounds (VOC) [326 IAC 8-3-8] (Material requirements for cold cleaning degreasers)

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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 Lake County 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.

D.17.7 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

- (a) Pursuant to 326 IAC 8-9-1 (a) and (b) (Volatile Organic Liquid Storage Vessels), on and after October 1, 1995, stationary vessels used to store volatile organic liquids (VOL), that are located in Lake County with a capacity of less than thirty nine thousand (39,000) gallons are subject to the reporting and record keeping requirements of this rule. The VOL storage vessels are exempted from all other provisions of this rule.
- (b) Pursuant to 326 IAC 8-9-6 (a) and (b), the Permittee of each Volatile Organic Liquid Storage vessel to which 326 IAC 8-9-1 applies shall maintain the following records for the life of the vessel and submit a report to IDEM, OAQ containing the following for each vessel:
  - (1) The vessel identification number,
  - (2) The vessel dimensions, and
  - (3) The vessel capacity.

**SECTION E**

**Nitrogen Oxides Budget Trading Program - NOX Budget Permit for  
NOX Budget Units Under 326 IAC 10-4-1(a)**

ORIS Code: 50733

**NOX Budget Source [326 IAC 2-7-5(15)]**

One (1) Boiler House No. 4, emissions group 720, comprised of the following:

- (a) Two (2) Boilers, 720 No. 1 and No. 2, identified as O4B10459 and O4B20460, constructed in 1967, equipped to combust natural gas, blast furnace gas and fuel oil, with a heat input of 500 MMBtu per hour each, exhausting through Stacks O46268 and O46269, respectively.
- (b) One (1) Boiler, 720 No. 3, identified as O4B30461, constructed in 1967, equipped to combust blast furnace gas and natural gas, with a heat input of 500 MMBtu per hour, exhausting through Stack O46270.

One (1) Turbo Blower Boiler House (TBBH), emissions group 701, comprised of the following:

- (a) Three (3) Boilers, 701 No. 1, No. 2, and No. 3, identified as OTB10462, OTB20463 and OTB30464, constructed in 1948, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a heat input of 400 MMBtu per hour each, exhausting through Stacks OT6271, OT6272 and OT6273, respectively.
- (b) One (1) Boiler 701 No. 5, identified as OTB50466, constructed in 1958, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a heat input of 450 MMBtu per hour, exhausting through Stack OT6275.
- (c) One (1) boiler 701 No. 6, identified as OTB60467, constructed prior to August 17, 1971, equipped to combust blast furnace gas and natural gas, with a heat input capacity of 710 MMBtu per hour, exhausting through Stack OT6276.

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

**E.1 Automatic Incorporation of Definitions [326 IAC 10-4-7(e)]**

This NOX budget permit is deemed to incorporate automatically the definitions of terms under 326 IAC 10-4-2.

**E.2 Standard Permit Requirements [326 IAC 10-4-4(a)]**

- (a) The owners and operators of the NOX budget source and each NOX budget unit shall operate each unit in compliance with this NOX budget permit.
- (b) The NOX budget units subject to this NOX budget permit are the following:
  - (1) At Boiler House No. 4, 720 No. 1, 720 No. 2, and 720 No. 3; and
  - (2) At Turbo Blower Boiler House, 701 No. 1, 701 No. 2, 701 No. 3, 701 No. 5, and 701 No. 6.

**E.3 Monitoring Requirements [326 IAC 10-4-4(b)]**

- (a) The owners and operators and, to the extent applicable, the NOX authorized account representative of the NOX budget source and each NOX budget unit at the source shall comply with the monitoring requirements of 40 CFR 75 and 326 IAC 10-4-12.
- (b) The emissions measurements recorded and reported in accordance with 40 CFR 75 and 326 IAC 10-4-12 shall be used to determine compliance by each unit with the NOX

budget emissions limitation under 326 IAC 10-4-4(c) and Condition E.4, Nitrogen Oxides Requirements.

#### E.4 Nitrogen Oxides Requirements [326 IAC 10-4-4(c)]

- (a) The owners and operators of the NOX budget source and each NOX budget unit at the source shall hold NOX allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NOX allowance transfer deadline, in each unit's compliance account and the source's overdraft account in an amount:
- (1) Not less than the total NOX emissions for the ozone control period from the unit, as determined in accordance with 40 CFR 75 and 326 IAC 10-4-12;
  - (2) To account for excess emissions for a prior ozone control period under 326 IAC 10-4-10(k)(5); or
  - (3) To account for withdrawal from the NOX budget trading program, or a change in regulatory status of a NOX budget opt-in unit.
- (b) Each ton of NOX emitted in excess of the NOX budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.
- (c) Each NOX budget unit shall be subject to the requirements under (a) above and 326 IAC 10-4-4(c)(1) starting on May 31, 2004.
- (d) NOX allowances shall be held in, deducted from, or transferred among NOX allowance tracking system accounts in accordance with 326 IAC 10-4-9 through 11, 326 IAC 10-4-13, and 326 IAC 10-4-14.
- (e) A NOX allowance shall not be deducted, in order to comply with the requirements under (a) above and 326 IAC 10-4-4(c)(1), for an ozone control period in a year prior to the year for which the NOX allowance was allocated.
- (f) A NOX allowance allocated under the NOX budget trading program is a limited authorization to emit one (1) ton of NOX in accordance with the NOX budget trading program. No provision of the NOX budget trading program, the NOX budget permit application, the NOX budget permit, or an exemption under 326 IAC 10-4-3 and no provision of law shall be construed to limit the authority of the U.S. EPA or IDEM, OAQ to terminate or limit the authorization.
- (g) A NOX allowance allocated under the NOX budget trading program does not constitute a property right.
- (h) Upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NOX allowance to or from each NOX budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become a part of, this NOX budget permit of the NOX budget unit by operation of law without any further review.

#### E.5 Excess Emissions Requirements [326 IAC 10-4-4(d)]

The owners and operators of each NOX budget unit that has excess emissions in any ozone control period shall do the following:

- (a) Surrender the NOX allowances required for deduction under 326 IAC 10-4-10(k)(5).
- (b) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 326 IAC 10-4-10(k)(7).

E.6 Record Keeping Requirements [326 IAC 10-4-4(e)] [326 IAC 2-7-5(3)]

Unless otherwise provided, the owners and operators of the NOx budget source and each NOx budget unit at the source shall keep, either 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:

- (a) The account certificate of representation for the NOX authorized account representative for the source and each NOX budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 326 IAC 10-4-6(h). The certificate and documents shall be retained either on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond the five (5) year period until the documents are superseded because of the submission of a new account certificate of representation changing the NOX authorized account representative.
- (b) All emissions monitoring information, in accordance with 40 CFR 75 and 326 IAC 10-4-12, provided that to the extent that 40 CFR 75 and 326 IAC 10-4-12 provide 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 NOX budget trading program.
- (d) Copies of all documents used to complete a NOX budget permit application and any other submission under the NOX budget trading program or to demonstrate compliance with the requirements of the NOX budget trading program.

This period may be extended for cause, at any time prior to the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to IDEM, OAQ or U.S. EPA within three (3) business days following receipt of a written request. Nothing in 326 IAC 10-4-4(e) shall alter the record retention requirements for a source under 40 CFR 75. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

E.7 Reporting Requirements [326 IAC 10-4-4(e)]

- (a) The NOX authorized account representative of the NOX budget source and each NOX budget unit at the source shall submit the reports and compliance certifications required under the NOX budget trading program, including those under 326 IAC 10-4-8, 326 IAC 10-4-12, or 326 IAC 10-4-13.
- (b) Pursuant to 326 IAC 10-4-4(e) and 326 IAC 10-4-6(e)(1), each submission shall include the following certification statement by the NOX authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the NOX budget sources or NOX budget 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 10-4 requires a submission to IDEM, OAQ, the NOX authorized account representative shall submit required information to:

Indiana Department of Environmental Management  
Office of Air Quality

100 North Senate Avenue  
Indianapolis, Indiana 46204

- (d) Where 326 IAC 10-4 requires a submission to U.S. EPA, the NOX authorized account representative shall submit required information to:

U.S. Environmental Protection Agency  
Clean Air Markets Division  
1200 Pennsylvania Avenue, NW  
Mail Code 6204N  
Washington, DC 20460

E.8 Liability [326 IAC 10-4-4(f)]

The owners and operators of each NOX budget source shall be liable as follows:

- (a) Any person who knowingly violates any requirement or prohibition of the NOX budget trading program, a NOX budget permit, or an exemption under 326 IAC 10-4-3 shall be subject to enforcement pursuant to applicable state or federal law.
- (b) Any person who knowingly makes a false material statement in any record, submission, or report under the NOX budget trading program shall be subject to criminal enforcement pursuant to the applicable state or federal law.
- (c) No permit revision shall excuse any violation of the requirements of the NOX budget trading program that occurs prior to the date that the revision takes effect.
- (d) Each NOX budget source and each NOX budget unit shall meet the requirements of the NOX budget trading program.
- (e) Any provision of the NOX budget trading program that applies to a NOX budget source, including a provision applicable to the NOX authorized account representative of a NOX budget source, shall also apply to the owners and operators of the source and of the NOX budget units at the source.
- (f) Any provision of the NOX budget trading program that applies to a NOX budget unit, including a provision applicable to the NOX authorized account representative of a NOX budget unit, shall also apply to the owners and operators of the unit. Except with regard to the requirements applicable to units with a common stack under 40 CFR 75 and 326 IAC 10-4-12, the owners and operators and the NOX authorized account representative of one (1) NOX budget unit shall not be liable for any violation by any other NOX budget unit of which they are not owners or operators or the NOX authorized account representative and that is located at a source of which they are not owners or operators or the NOX authorized account representative.

E.9 Effect on Other Authorities [326 IAC 10-4-4(g)]

No provision of the NOX budget trading program, a NOX budget permit application, a NOX budget permit, or an exemption under 326 IAC 10-4-3 shall be construed as exempting or excluding the owners and operators and, to the extent applicable, the NOX authorized account representative of a NOX budget source or NOX budget unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the CAA.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT  
CERTIFICATION

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: 089-7663-00121

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.**

Please check what document is being certified:

- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (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 BRANCH  
100 North Senate Avenue  
Indianapolis, Indiana 46204  
Phone: 317-233-5674  
Fax: 317-233-5967**

**EMERGENCY OCCURRENCE REPORT**

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121

**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 317-233-5674, ask for Compliance Section); and  
The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), 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 Describe:
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 Data Section

### QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

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".

NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

**Permit Requirement** (specify permit condition #)

**Date of Deviation:**

**Duration of Deviation:**

**Number of Deviations:**

**Probable Cause of Deviation:**

**Response Steps Taken:**

<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.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE DATA SECTION**

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121  
Facility:

<input checked="" type="checkbox"/> Natural Gas Only
<input checked="" type="checkbox"/> Alternative 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 DATA SECTION

### Part 70 Operating Permit Quarterly Report

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121  
Facility: No. 3 Sinter Plant Sinter Strand Windbox recirculating burners (ISB001, ISB002, and ISB003)  
Parameter: Natural gas usage  
Limit: 95.5 million cubic feet (MMCF) per 12-consecutive month period with compliance demonstrated at the end of each month.

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 DATA SECTION

### Part 70 Permit Quarterly Report

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121  
Facility: No. 3 Sinter Plant Sinter Strand Windbox recirculating burners (ISB001, ISB002, and ISB003)  
Parameter: Coke oven gas usage  
Limit: 1,637.4 million cubic feet (MMCF) per 12-consecutive month period with compliance demonstrated at the end of each month

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 DATA SECTION

### Part 70 Operating Permit Quarterly Report

Source Name: U.S. Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121  
Facility: South Sheet Mill hydrogen atmosphere batch annealing furnaces  
Parameter: NOx  
Limit: 37.2 million cubic feet (MMCF) of natural gas per 12 consecutive month period with compliance demonstrated at the end of each month,

YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This month	11 previous 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 DATA SECTION**

**Part 70 Operating Permit Quarterly Report**

Source Name: U. S. Steel - Gary Works  
Source Address: One North Broadway, Gary, Indiana 46402  
Mailing Address: One North Broadway, Gary, Indiana 46402  
Part 70 Part No.: T089-7663-00121  
Facility: Turboblower Boiler House (TBBH) boiler no. 6  
Parameter: Natural Gas Usage  
Limits: 1,059.7 million cubic feet (MMCF) per 12-consecutive month period with compliance demonstrated at the end of each month.

QUARTER: \_\_\_\_\_ YEAR: \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This month	11 previous months	12 month total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 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 DATA SECTION

### Part 70 Quarterly Report

Source Name: US Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121  
Facility: Coke oven battery natural gas injection jets (CPNG001, CPNG002, and CPNG003)  
Parameter: Natural gas usage  
Limit: 178.7 million cubic feet (MMCF) per 12-consecutive month period with compliance demonstrated at the end of each month.

QUARTER: \_\_\_\_\_ YEAR \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This month	11 previous months	12 month total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
- 9 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 DATA SECTION

### Part 70 Quarterly Report

Source Name: US Steel - Gary Works  
 Source Address: One North Broadway, Gary, IN 46402  
 Mailing Address: One North Broadway, Gary, IN 46402  
 Part 70 Permit No.: T089-7663-00121  
 Facility: Boilers No. through No. 10 and the temporary rental boiler at the coke plant boiler house  
 Parameter: Total NOx emissions  
 Limit: Less than 64.6 tons per twelve (12) consecutive month period with compliance demonstrated at the end of each month

$$\text{NOx Emissions (tons/month)} = (280X + 36Y + 129 Z) / 2000$$

Where X = total monthly natural gas usage in boilers No. 1 through No. 8 (MMCF/month)  
 Y = monthly natural usage in the temporary rental boiler (MMCF/month)  
 Z = total monthly natural gas usage in boilers No. 9 and 10 (MMCF/month)

QUARTER: \_\_\_\_\_ YEAR \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This month	11 previous months	12 month total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
- 9 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 DATA SECTION

## Part 70 Quarterly Report

Source Name: US Steel - Gary Works  
Source Address: One North Broadway, Gary, IN 46402  
Mailing Address: One North Broadway, Gary, IN 46402  
Part 70 Permit No.: T089-7663-00121  
Facility: Boilers No. 1 through No.10 and the temporary rental boiler at the coke plant boiler house  
Parameter: Total Natural gas usage  
Limit: Less than 2,550 MMCF per 12-consecutive month period with compliance demonstrated at the end of each month.

QUARTER: \_\_\_\_\_ YEAR \_\_\_\_\_

Month	Column 1	Column 2	Column 1 + Column 2
	This month	11 previous months	12 month total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
- 9 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

### Technical Support Document (TSD) for a Part 70 Operating Permit

#### Source Background and Description

**Source Name:** US Steel - Gary Works  
**Source Location:** One North Broadway, Gary, Indiana 46402  
**County:** Lake  
**SIC Code:** 3312  
**Operation Permit No.:** T089-7663-00121  
**Permit Reviewer:** Gail McGarrity

The Office of Air Quality (OAQ) has reviewed a Part 70 permit application from U. S. Steel - Gary Works relating to the operation of an integrated steel mill.

#### Source Definition

US Steel Gary Works is an integrated steel mill that consists of a main mill and ten (10) on-site contractors:

- (a) U. S. Steel - Gary Works, plant Id 089-00121, the primary operation, located at One North Broadway, Gary, Indiana 46402;
- (b) Brandenburg Industrial Service Company, plant Id 089-00176, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (c) Central Teaming Company, plant Id 089-00172, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (d) Gary Coal Processing, LP plant Id 089-00169, a supporting operation, located at One North Broadway, Gary, Indiana 46402; and
- (e) Heckett Multiserv, plant Id 089-00170, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (f) Heritage Slag Products, LLC., plant Id 089-05210, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (g) International Mill Service, Inc. plant Id 089-00132, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (h) Koppers, Inc., plant Id 089- 00180, a supporting operation, located at One North Broadway, Gary, Indiana 46402;

- (i) Levy-Indiana Slag Company, plant Id 089-00133, a supporting operation, located at One North Buchanan Street, Gary, Indiana 46401;
- (j) Mid-Continent Coal and Coke Company, plant Id 089-00173, a supporting operation, located at One North Broadway, Gary, Indiana 46402;
- (k) Tube City, Inc., plant Id 089-00174, a supporting operation, is located at One North Broadway, Gary, Indiana 46401.

IDEM has determined that U.S. Steel – Gary Works and each of the on-site contractors are under the common control of U.S. Steel - Gary Works. These plants are considered one source due to contractual control. Therefore, the term “source” in the Part 70 documents refers to both U.S. Steel- Gary Works and the on-site contractors as one source.

Separate Part 70 permits will be issued to US Steel - Gary Works and each on site contractor, solely for administrative purposes.

Company Name	Part 70 Permit Number
U.S. Steel - Gary Works	089-7663-00121
Brandenburg Industrial Service Company	089-8013-00176
Central Teaming Company, Inc.	089-7684-00172
Gary Coal Processing, LP	089-7171-000169
Heckett Multiserv,	089-7649-00170
Heritage Slag Products, LLC,	089-12280-05210
International Mill Service, Inc.	089-5630-00132
Koppers, Inc.	089-13872-00180
Levy-Indiana Slag Company	089-7719-00133
Mid-Continent Coal and Coke Company	089-8064-0073
Tube City, Inc.	089-7648-00174

### Permitted Emission Units and Pollution Control Equipment

The integrated steel mill, US Steel-Gary Works consists of the following:

#### Coal Handling Operation

- (a) One (1) coal car bottom thaw shed, identified as CHY00071, constructed in 1959, combusting coke oven gas, with a maximum heat input capacity of 25 MMBtu per hour, with an open flame heater, exhausting uncontrolled fugitive emissions.
- (b) One (1) coal car side thaw station, identified as CHT0001, constructed in 1959, combusting natural gas, with a maximum heat input capacity of 15 MMBtu per hour, with an open flame heater, exhausting uncontrolled fugitive emissions.
- (c) One (1) No. 2 Coke Battery Precarbonization facility, consisting of three (3) lines, Line A, Line B and Line C identified as CH2A0020, CH2B0021 and CH2C0022, constructed prior to October 24, 1974, each with a maximum capacity of 153.5 tons per hour. Particulate matter emissions from the three lines are controlled by electrostatic precipitators (ESP), ESP A, ESP B and ESP C, identified as CH3029, CH3030 and CH3031, exhausting through stacks CH6034, CH6035 and CH6037, respectively.
- (d) One (1) No. 3 Coke Battery Precarbonization facility consisting of three (3) lines Line A, Line B and Line C identified as CH3A0017, CH3B0018 and CH3C0019, constructed prior

to October 24, 1974, each with a maximum capacity of 153.5 tons per hour. Particulate matter emissions from the three lines are controlled by electrostatic precipitators (ESP), ESP A, ESP B and ESP C, CH3026, CH3027 and CH3028, exhausting through stacks CH6028, CH6029 and CH6031, respectively.

- (e) One (1) coal crushers: HiVol (3) hammer mills with a maximum capacity of 160 tons per hour, LoVol (3) hammer mills with a maximum capacity of 150 tons per hour, and MidVol (2) hammer mills with a maximum capacity of 100 tons per hour, that exhausts into the totally enclosed coal blending building.
- (f) One (1) crusher, modified in 1999, to be used as a second coal crusher, with a maximum capacity of 1,200 tons per hour when used as a coal crusher. Emissions exhaust to the totally enclosed coal blending building. This operation is a totally enclosed hammer mill.
- (g) Coal Handling Storage Facilities, identified as emission unit CHSQ0003.

### **Coke Batteries Operations**

#### **(a) No. 2 Coke Battery**

- (1) One (1) six (6) meter tall vertical flue coke battery with 57 ovens, No. 2 Coke Battery, identified as CP2B0079, constructed in November 1973, with a maximum charging capacity of 217 tons per hour. Excessive coke oven gas back pressure is controlled by three (3) flares lit with internal flare igniters CP3060, CP3061 and CP3062, exhausting to Bypass/Bleeder Flare Stacks CP6105, CP6106 and CP 6107.
- (2) The No. 2 Coke Battery underfiring system has a maximum combustion heat input capacity of 198 MMBtu per hour, exhausting to stack CP6040 equipped with a continuous opacity monitor (COM).
- (3) The No. 2 Coke Battery has a maximum pushing capacity of 161 tons of coke per hour, with particulate emissions controlled by a Mobile Scrubber Car 2-9121, identified as CP3034, exhausting to Stack CP6041.
- (4) Nos. 2 and 3 Quench Towers identified as CP1Q0080 and CP2Q0081, constructed in 1975, with a maximum combined capacity of 322 tons of coke per hour, each equipped with a quench water header and baffle system with sprays. These towers service Nos. 2 and 3 Coke Batteries.
- (5) The No. 2 Coke Battery fugitive emissions are generated from charging operations, off take piping, door leaks, lid leaks and collector main leaks.

#### **(b) No. 3 Coke Battery**

- (1) One (1) six (6) meter tall vertical flue coke battery with 57 ovens, No.3 Coke Battery, identified as CP3B0086, constructed in November 1974, with a maximum charging capacity of 217 tons per hour., Excessive coke oven gas back pressure is controlled by three (3) flares lit with internal flare igniters CP3063, CP3064 and CP3065, exhausting to Bypass/Bleeder Flare stacks CP6108, CP6109 and CP 6110.
- (2) The No. 3 Coke Battery underfiring system has a maximum combustion heat input capacity of 198 MMBtu per hour, exhausting to stack CP6045, equipped

with a continuous opacity monitor (COM).

- (3) The No.3 Coke Battery has a maximum pushing capacity of 161 tons of coke per hour, with particulate emissions controlled by a Mobile Scrubber Car 3-9122, identified as CP3038, exhausting to stack CP6046.
  - (4) The No. 1 Quench Tower, identified as CP3Q0087, constructed in 1975, with a maximum capacity of 322 tons of coke per hour, equipped with a quench water header and baffle system with sprays. This tower services Nos. 2, 3, 5 and 7 Coke Batteries.
  - (5) The No. 3 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lid leaks and collector main leaks.
- (c) No. 5 Coke Battery
- (1) One (1) three (3) meter short vertical flue coke oven battery with 77 ovens, No. 5 Coke Battery, identified as CP5B0090, constructed in 1954, with a maximum charging capacity of 84 tons per hour. Excessive coke oven gas back pressure is controlled by two (2) flares lit with internal flare igniters CP3066 and CP3067, exhausting to Bypass/Bleeder Flare stacks CP6111 and CP 6112.
  - (2) The No. 5 Coke Battery underfiring system has a maximum combustion heat input capacity of 115 MMBtu per hour, exhausting to stack CP6049, equipped with a COM.
  - (3) The No. 5 and No.7 Coke Batteries have a combined maximum pushing capacity of 103 tons of coke per hour, with particulate emissions controlled by a common baghouse, identified as CP3041, exhausting to stack CP6050.
  - (4) Nos. 5 and 6 Quench Towers identified as CP5Q0091 and CP5Q0095, constructed in 1954, with a maximum combined capacity of 103 tons of coke per hour, equipped with a quench water header and baffle system with sprays. These towers service Nos. 5 and 7 Coke Batteries.
  - (5) The No. 5 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lid leaks and collector main leaks.
- (d) No. 7 Coke Battery
- (1) One (1) three (3) meter short vertical flue coke oven battery, with 77 ovens, No.7 Coke Battery, identified as CP7B0094, constructed in 1954, with a maximum charging capacity of 84 tons per hour. Excessive coke oven gas back pressure is controlled by two (2) flares lit with internal flare igniters CP3068 and CP3069, exhausting to Bypass/Bleeder Flare stacks CP6113 and CP6114.
  - (2) The No. 7 Coke Battery underfiring system has a maximum combustion heat input capacity of 115 MMBtu per hour, exhausting to stack CP6053 equipped with a COM.
  - (3) The No. 5 and No.7 Coke Batteries have a combined maximum pushing capacity of 103 tons of coke per hour, with particulate emissions controlled by a common baghouse, identified as CP3041, exhausting to stack CP6050.

- (4) Nos. 5 and 6 Quench Towers identified as CP5Q0091 and CP5Q0095, constructed in 1954, with a maximum combined capacity of 103 tons of coke per hour, equipped with a quench water header and baffle system with sprays. These towers service Nos. 5 and 7 Coke Batteries.
  - (5) The No. 7 Coke Battery fugitive emissions are generated from charging operations, offtake piping, door leaks, lids leaks and collector main leaks.
- (e) Natural Gas Underfiring Injection System Jets
- Three (3) natural gas injection jets, identified as CPNGI001, CPNGI002 and CPNGI003, constructed in 2001, with heat input capacities of 22 MMBtu per hour, 43 MMBtu per hour and 122 MMBtu per hour, respectively. Natural gas injection provided Btu stabilization control, coke oven gas quality control and emergency gas supply to the battery unfiring system.

### **Coke By-Products Recovery Plant**

- (a) Recovery No. 1 Suction Control System
- (1) Four (4) Predecanters D-101A, D-101B, D-101C and D-101D, identified as CBP10100, CBP20101, CBP30102 and CBP30103, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72- inch Suction Main.
  - (2) Two (2) Still Decanters D-102B and D-102A, identified as CBD00104 and CBD00105, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
  - (3) Two (2) Gary Decanters D-5 and D-4, identified as CBD20107 and CBD30108, constructed in 1991, with VOC emission vapors directed by a natural gas blanket system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
  - (4) One (1) Bleed-Off Tank, identified as CBB10106, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
  - (5) One (1) Liquor Storage Tank T-7, identified as CBL10109, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 into the 72-inch Suction Main.
  - (6) Two (2) Tar Storage Tanks T-2 and T-3, identified as CBT00110 and CBT00111, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
  - (7) One (1) Storage Tank T-6, identified as CBT20112, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
  - (8) Two (2) PC Tar Storage Tanks T-363D and T-363A, identified as CBT30113 and CB40114, constructed in 1991, with VOC emission vapors directed by a natural

gas blanketing system CB3080 to Control Station No.1 into the 72-inch Suction Main.

- (9) One (1) Dry Tar Storage Tank T-9, identified as CBT50115, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.
- (10) One (1) Sump S-9 serving Dry Tar Storage Tank ST-9, identified as CBS10116, constructed in 1991, with VOC emission vapors, directed by a natural gas blanketing system CB3080 to Control Station No.1 and into the 72-inch Suction Main.

(b) Recovery No. 2 Suction Control System

- (1) Three (3) Tar Tanks T-304C, T-304B and T-304A , identified as CBT60118, CBT70119, and CBT80121, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No.2 and into the 72-inch Suction Main.
- (2) One (1) Tar Feed Tank T-306C, identified as CBTF0164, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No.2 and into the 72-inch Suction Main.
- (3) One (1) Wash Oil Tank T-331AN, identified as CBO10123, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 into the 72-inch Suction Main.
- (4) Two (2) Light Oil Storage Tanks T-312 and T-311, identified as CBO20124 and CBO30125, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 and into the 72-inch Suction Main.
- (5) One (1) sump S-304/306, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3081 to Control Station No. 2 and into the 72-inch Suction Main.

(c) No. 3 Suction Control System

- (1) Four (4) Predecanters D-105A, D-105B, D-105C and D-105D, identified as CBP70137, CBP80138, CBP50139 and CBP60140, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (2) Two (2) Still Decanters D-106A and D-106B, identified as CBD60134 and CBD70136, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (3) Two (2) Gary Decanters D-6 and D-7, identified as CBD40132 and CBD50133, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (4) Two (2) Tar Decanters D-5/7N and D-5/7S, identified as CBD80141 and



CBD90142, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.

- (5) One (1) Bleed-Off Tank B-104, identified as CBB20135, constructed in 1991 with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
  - (6) One (1) Liquor Surge Tank T-11, identified as CBL60131, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3082 to Control Station No. 3 and into the 72-inch Suction Main.
- (d) No. 4 Suction Control System
- (1) Four (4) Circulating Liquor Decanters L-100B, L-100C, L-100D and L-100E, identified as CBC30127, CBC40128, CBC50129 and CBL80145, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
  - (2) Two (2) Liquor Surge Tanks T-340A and T-340B, identified as CBC20126 and CBL70143, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
  - (3) One (1) Primary Cooler Tank T-345A, identified as CBTF0130, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3083 to Control Station No. 4 and into the 72-inch Suction Main.
- (e) No. 5 Suction Control System
- (1) One (1) Sump of Circulating Liquor Ls-100E, identified as CBS40144, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
  - (2) Three (3) Tar Storage Tanks T-301, T-302A, T-302B, identified as CBTA0146, CBTB0147 and CBTC0148, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
  - (3) Two (2) Storage Tanks T-7100, T-7110 and T-7120, constructed in 1991, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
  - (4) Two (2) Oil Tar Separator Tanks, T-7000 and T-7010, constructed in 1999, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
  - (5) Two (2) Oil Tar Separator Tanks, T-7020 and T-7030, constructed in 1999, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.
  - (6) One (1) Surge Tank T-7800, with VOC emission vapors directed by a natural gas blanketing system CB3051 to Control Station No. 5 and into the 72-inch Suction Main.

- (f) **Distillation Sump Emission Control**  
One (1) Distillation Sump Emission Control System, identified as CBS80151, constructed in 1991, uses a nitrogen gas blanketing system to control fugitive VOC emission vapors.
- (g) **Coke Oven Gas (COG) High Pressure Control System**, constructed in 1991, contains instrumentation and control valves designed to limit the maximum pressure in the COG distribution system. Excess COG pressure is directed to and combusted in a bleeder flare with emissions exhausting to Stack CG6077.
- (h) **Equipment in Benzene Service** consists of several hundred components: pumps, exhausters, valves, flanges and pressure relief devices in light oil service within the byproducts plant.

#### **Coke Oven Gas (COG) Desulfurization Facility**

- (a) One (1) amine unit, constructed in 1997, removes the hydrogen sulfide and other organic sulfur compounds from the coke oven gas (COG) stream.
- (b) One (1) reflux unit, constructed in 1997, removes the ammonia and other acid gases from the COG stream.
- (c) One (1) hydrogen cyanide (HCN) destruction unit, constructed in 1997 converts HCN in the acid gas stream to ammonia to minimize corrosion to the Sulfur Recovery Unit.
- (d) One (1) sulfur recovery unit, constructed in 1997, converts the sulfur compounds in the acid gas stream to elemental sulfur. This sulfur is sold as a by-product.
- (e) One (1) incineration unit, constructed in 1997, changes the sulfur compounds not removed by the sulfur recovery unit into sulfur dioxide which is burned off in the tail gas incinerator.

#### **Number 2 Coke Plant Boiler House**

- (a) Two (2) Boilers, Nos. 1 and 2, identified as CSS10155 and CSS20156, constructed prior to 1970, with a maximum heat input capacity of 160 MMBtu per hour each, exhausting stack CS6061. These boilers are equipped to combust natural gas.
- (b) One (1) Boiler, No. 3, identified as CSS30157, constructed in 1943, with a maximum heat input capacity of 160 MMBtu per hour, exhausting to stack CS6062. This boiler is equipped to combust natural gas and coke oven gas.
- (c) Two (2) Boilers, Nos. 4 and 5, identified as CSS40158 and CSS50159, constructed prior to 1955, with a maximum heat input of 170 MMBtu per hour each, exhausting to stack CS6063. These boilers are equipped to combust natural gas and coke oven gas.
- (d) One (1) Boiler No. 6, identified as CSS60160, constructed in 1955, with a maximum heat input capacity of 170 MMBtu per hour, exhausting to stack CS6064. This boiler is equipped to combust natural gas and coke oven gas.
- (e) One (1) Boiler, No. 7, identified as CS70161, constructed in 1976, with a maximum heat input capacity of 170 MMBtu per hour, exhausting to stack CS6065. This boiler is equipped to combust natural gas and coke oven gas.

- (f) One (1) Boiler, No. 8, identified as CSS80162, constructed in 1981, with a maximum heat input capacity of 250 MMBtu per hour, exhausting to stack CS6066. This boiler is equipped to combust natural gas and coke oven gas.
- (g) One (1) natural gas fired boiler at the coke plant boiler house, identified as the temporary rental boiler CSS80163, constructed in 2004, with a maximum heat input capacity of 235 MMBtu/hr and equipped with a low NOx burner, exhausting to the existing stack CS6066.
- (h) Two (2) boilers at the coke plant boiler house, identified as Boilers No. 9 CSS80164 and No. 10 CSS 80165, constructed in 2004, each with a maximum heat input capacity of 235 MMBtu/hr, exhausting to stacks CS6067 and CS6068, respectively. These boilers are equipped to burn natural gas and coke oven gas.
- (i) One (1) lime storage silo with a maximum capacity of 20 tons per hour and emissions controlled by a baghouse LRS-1, constructed in 2001, exhausting inside the building.

**Number 3 Sinter Plant:**

- (a) Three (3) Sinter Strands Windbox units, constructed in 1979, identified as ISS10379, ISS20380 and ISS30381, each with a 50 MMBtu per hour low NOx/flue gas recirculating burner system identified as ISB001, ISB002 and ISB003 and a maximum capacity of 225 tons of sinter per hour each, controlled by two (2) Windbox Gas Cleaning Systems IS3203 and IS3204, replaced in 1996, each comprised of a Quench Reactor, Dry Venturi Scrubber, a baghouse operated in series, and VOC CEMS, exhausting to Windbox stacks IS6198 and IS6199.
- (b) One (1) Cold Screen Station, identified as ISR00389, constructed in 1979, with a maximum capacity of 450 tons per hour, using a Baghouse IS3209 as a control device and exhausting to stack IS6207.
- (c) One (1) S1/S2 Conveyer System, identified as ISY00388, constructed in 1979, with a maximum capacity of 450 tons per hour, that transfers sinter from the sinter coolers to the cold screening station, using a Baghouse IS3208 as a control device and exhausting to stack IS6206.
- (d) Three (3) Sinter Coolers, identified as ISC10385, ISC20386, and ISC30387, constructed in 1979, with a maximum capacity of 225 ton per hour each, with emissions exhausting to stacks IS6203, IS6204, and IS6205 respectively.
- (e) Three (3) Sinter Strand Discharge End Areas, identified as ISS10379, ISS20380 and ISS0381, constructed in 1979, using three (3) baghouses as control devices, designated as IS3205, IS3206, and IS3207, exhausting to stacks IS6200, IS6201, and IS6202 respectively.
- (f) Blended Material Storage Bin Building, identified as ISB00377, constructed in 1979, with a maximum capacity of 1,000 tons per hour, using a Baghouse IS3196 as a control device and exhausting to stack IS6197.
- (g) Storage and Blending Piles, identified as ISBP0376, exhausting fugitive emissions.

**Blast Furnaces**

- (a) Raw materials shipped to the ore yard identified as IAOYO366, are transferred to the

Highline, identified as IAHL0307, from which raw material shipments and coke are sent through the Stockhouse.

- (b) The No. 13 Blast Furnace Stockhouse (sinter screening station), constructed in 1979, identified as IDSH0367, controlled by dust suppression, services Blast Furnaces No. 4, 6, 8 and 13.
- (c) No. 4 Blast Furnace, constructed in 1917, with a maximum capacity of 200 tons per hour, identified as IABF0308, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyleres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil (from on-site contractor when it meets specifications) at a rate of 70 gallons per minute and/or coal tar (when the on-site contractor tar centrifuge is not operating) at a rate of 70 gallons per minute into the No. 4 Blast Furnace.
  - (2) Three (3) No. 4 Blast Furnace Stoves identified as IAST0360, replaced in 1947, with a maximum heat input capacity of 200 MMBtu per hour each, combusting blast furnace gas (BFG) and natural gas, exhausting to the combustion stack IA6160.
  - (3) No. 4 Blast Furnace Casthouse, identified as IABF0308, constructed in 1917, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IA3177, exhausting to casthouse roof monitor IA6010.
  - (4) One (1) Slag Pit, identified as IASP0311, exhausting fugitive emissions.
- (d) No. 6 Blast Furnace, constructed in 1910, with a maximum capacity of 175 tons per hour, identified as IBBFO341, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyleres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil at a rate of 70 gallons per minute and/or coal tar at a rate 70 gallons per minute into the No. 6 Blast Furnace.
  - (2) Three (3) No. 6 Blast Furnace Stoves identified as IBST0361, replaced in 1997, with a maximum heat input capacity of 200 MMBtu per hour each, combusting Blast Furnace Gas (BFG) and natural gas exhausting to the combustion stack IB6168.
  - (3) No. 6 Blast Furnace Casthouse, identified as IBBF0341, constructed in 1910, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IB3178, exhausting to casthouse roof monitor IB6011.
  - (4) One (1) Slag Pit, identified as IBSP0335, exhausting fugitive emissions.
- (e) No. 8 Blast Furnace, constructed in 1909, with a maximum capacity of 160 tons per hour, identified as ICBFO354, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
  - (1) Small water cooled nozzles called tyleres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 26 tons per hour, oil at a rate of 70

- gallons per minute and/or coal tar at a rate of 70 gallons per minute into the No. 8 Blast Furnace.
- (2) Three (3) No. 8 Blast Furnace Stoves, identified as ICST0362, replaced in 1999, with a maximum heat input capacity of 200 MMBtu per hour each, combusting Blast Furnace Gas and natural gas, exhausting to the combustion stack IC6175.
  - (3) No. 8 Blast Furnace Casthouse, identified as ICBF0354, constructed in 1909, with emissions from tapping and runners controlled by a natural gas iron oxide fume suppression system IC3179, exhausting to cast house roof monitor IC6012.
  - (4) One (1) Slag Pit, identified as ICSP0363, exhausting fugitive emissions.
- (f) No. 13 Blast Furnace, constructed in 1974, with a maximum capacity of 450 tons per hour, identified as IDBF0369, using a Blast Furnace Gas Distribution System to collect the blast furnace gas.
- (1) Small water cooled nozzles called tyres allow heat and oxygen into the blast furnace and inject pulverized coal at a rate of 80 tons per hour, oil at a rate of 150 gallons per minute and/or coal tar at a rate of 150 gallons per minute into the No.13 Blast Furnace.
  - (2) Four (4) No.13 Blast Furnace Stoves identified as IDST0359, constructed in 1974, with a maximum heat input capacity of 330 MMBtu per hour each, combusting blast furnace gas and natural gas, exhausting to the combustion stack ID6184
  - (3) No. 13 Blast Furnace Casthouse, identified as IDBF0369, constructed in 1974 with emissions controlled by a baghouse, identified as ID3185, exhausting to stack ID6187 and fugitive emissions exhausting through the casthouse roof monitor ID6013;
  - (4) One (1) Slag Pit, identified as IDSP0371, exhausting fugitive emissions.
- (g) One (1) blast furnace gas distribution system consisting of instrumentation and valves designed to limit the maximum pressure through the distribution system by venting excess pressure to the three (3) bleeder stacks equipped with Flare No. 1 Identified as BG6073, constructed before 1920, Flare No. 2, identified as BG6074 constructed before 1920 and Flare No. 4 identified as BG6075, constructed in 1974.
- (h) One (1) iron beaching process, constructed prior to 1965, identified as IMIB0378, exhausting through stack IM6025.
- (i) One (1) transfer ladle maintenance operation, constructed prior to 1965, identified as, IMVM0375, exhausting through stack IM6025.

#### **Number One Basic Oxygen Process (BOP) Shop**

- (a) Two (2) Stations, identified as No. 1 and No. 2, Desulfurization Stations (originally constructed in 1981) and Hot Metal Transfer Stations (originally constructed in 1965), and replaced in 1998. Each station consists of Hot Metal Desulfurization, SSMS0201, Hot Metal Transfer Stations SSMT0203 and Slag Skimming SSSS0205. Hot metal from the blast furnaces is desulfurized and skimmed prior to charging in the steel making vessels. The maximum capacity of each station is 456 tons per hour. Each station is equipped

with a local exhaust ventilation hood to capture emissions ducted to the Hot Metal Desulfurization/Skimming Stations Baghouse SS3100, equipped with a leak detection system, exhausting through stack SS6100. The desulfurization units are equipped with nitrogen suppression around where the desulfurization lance penetrates the hood hole.

- (b) One (1) Flux handling system, identified as SSFH0206, constructed in 1965, used for unloading, temporary storage, and transfer of fluxing agents to the steel making vessels, with a maximum capacity of 63 tons per hour. Emissions are controlled by No.2, No. 3 and No. 4 bag houses SS3058, SS3059, and SS3053, all exhausting inside the building.
- (c) Basic Oxygen Process (BOP) Furnace operations, constructed in 1965, consisting of BOP vessel M, identified as SSVM0234, vessel E, identified as SSVE0235 and vessel D, identified as SSVD0236, with a maximum capacity of 250 tons per hour each. Emissions are controlled by an exhaust emission hood collection system, which exhausts emissions to the Gas Cleaning Systems SS3103 and SS3104.
- (d) Two (2) gas cleaning systems SS3103 and SS3104 that process the exhaust gases from the three (3) steel making vessels consisting of three (3) quenchers, two (2) scuppers, two (2) venturi scrubbers, two (2) separators, two (2) gas coolers fitted with internal mist eliminators and two (2) induced draft fans. Emissions exhaust through stacks SS6102 and SS6103.
- (e) CASbell/OB Lancing Stations M, D and E, include the controlled argon stirring process and blowing of oxygen to maintain temperature and chemistry. Constructed in 1981, Station M identified as SSCM0231, Station E identified as SSCE0232, and Station D identified as SSCD0233 with a maximum capacity of 250 tons per hour each. Emissions are controlled by the CASbell/OB Lancing baghouse SS3105, exhausting through Stack SS6104 and uncaptured emissions venting to the roof monitor SS6636.
- (f) One (1) Slingot Station, including the casting of bottom-poured steel ingots, identified as SSST0226, constructed in 1965, exhausting to the roof monitor SS6637.
- (g) Nine (9) natural gas fired Ladle Preheaters and Dryers identified as No. 1 through 9, with 1 through 4, constructed in 1983, 5 and 6 constructed in 1982 and 7 through 9 construction unknown. Six (6) Preheaters with a capacity of 14 MMBtu/hr each and three (3) Dryers with a capacity of 10 MMBtu/hr each, identified as SSLP0229, exhausting through Roof Monitor SS6637.
- (h) One (1) Continuous Caster, identified as SCSC0274, constructed in 1967, including a Tundish dryer with a heating capacity of 7.0 MMBtu/hr per hour, continuously casting steel slabs with a maximum capacity of 445 tons per hour. Emissions exhaust through Roof Monitor SS6638.
- (i) One (1) fugitive emissions mitigation system at the No.1 BOP Shop, constructed in June 2002, consisting of a capture hood system ducted to a 99% efficient baghouse with a flow rate of 11,500 acfm.

#### **Number Two Q-BOP Shop**

- (a) Two (2) Hot Metal Desulfurization Stations, identified as NSDS0246, constructed in 1987, with a maximum capacity of 510 tons per hour. Emissions are controlled by a baghouse NS3115, exhausting through stack NS6144 and fugitive emissions exhausting through the roof monitor NS6631.

- (b) Two (2) Hot Metal Mixers, identified as NSMM0264 and two (2) Hot Metal Mixer Heaters, identified as NSMH0251, constructed in 1973, with a maximum capacity of 255 tons per hour. The natural gas fired mixer heaters have a heat input capacity of 10 MMBtu/hr each. Emissions from the mixers and heaters are controlled by the Desulfurization Station Baghouse NS3115, exhausting through stack NS6144 and the fugitive emissions through roof monitor NS6631.
- (c) Q-Basic Oxygen Process (BOP) operations, constructed in 1973, consisting of BOP vessel T identified as NSVT0268, vessel W, identified as NSVW0269, and vessel Y, identified as NSVY0270, each with a maximum capacity of 500 tons per hour. Primary emissions are controlled by two (2) Gas Cleaning Systems, secondary emissions are controlled by the Secondary Emissions Baghouse NS3124, exhausting to stack NS6123, and uncontrolled emissions exhaust through Roof Monitor NS6632.
- (d) Two (2) Gas Cleaning Systems, identified as NS3125 and NS3126 located in the gas cleaner facility, constructed in 1973, process the exhaust gases from the three (3) steel making vessels through three (3) quenchers, two (2) scuppers (tank like structures that remove excess quench water and solids from the gas stream), two (2) venturi scrubbers, two (2) separators, two (2) gas coolers with mist eliminators, two (2) induced draft fans and two (2) whirl vanes exhausting to Stacks NS6124 and NS6125.
- (e) Three (3) Flux Bins T, W, and Y, identified as NSVT0265, NSVW0266 and NSVY0267, constructed in 1973, with a maximum capacity of 141 tons per hour each. Emissions are controlled by five (5) baghouses. Three (3) Flux Transfer Baghouses at 166' level identified as NS3112, NS3108, and NS3107, exhausting through Stacks NS6623, NS6627 and NS6628 returning emissions back to the process; One (1) North Flux Handling Baghouse at 116' level identified as NS3109 and one (1) South Flux Handling Baghouse at 116' level identified as NS3110, exhausting through stacks NS6626 and NS6625. Uncontrolled emissions exhaust through the roof monitor NS6632.
- (f) Three (3) Ladle Metallurgical Facilities, LMF1 identified as NSL10293, LMF 2 identified as NSL20294 were constructed in 1986 and LMF 3 identified as NSL30295, constructed in 1991 with a maximum capacity of 348 tons per hour each. Emissions from LMF 1 and 2 are controlled by Nos. 1 and 2 Hot Fume Exhaust baghouses NS3135 and NS3136, exhausting through stacks NS6146 and NS6147. Material handling emissions at LMF 1 and 2 are controlled by baghouse NS3052, exhausting through stack NS6055. The LMF 3 Hot Fume Exhaust and Material Handling emissions are controlled by baghouse NS3137, exhausting to stack NS6148. All uncontrolled emissions exhaust through the roof monitor NS6634.
- (g) One (1) R-H Vacuum Degasser, identified as NSVD0271, constructed in 1989, with a maximum capacity of 297.1 tons of steel per hour consisting of two (2) natural gas fired heaters, one (1) active and one (1) spare, identified as NSAB0276 and NSSB0275, with heat input capacities of 12 MMBtu per hour and 3 MMBtu per hour, respectively. Emissions are controlled with a flare that exhausts through Stack NS6145 and uncontrolled emissions exhaust through the Roof Monitor NS6634.
- (h) One (1) Slag Conditioning Station, constructed in 1997, with a maximum capacity of 297.1 tons of steel per hour.
  - (1) PM<sub>10</sub> emissions from the station are controlled by a baghouse exhausting through Stacks S-1 through S-6 and back to the process.
  - (2) PM<sub>10</sub> emissions from the material handling of slag conditioning and metallurgical

agents are exhausted through the No. 1 Hot fume exhaust baghouse NS3135, exhausting through Stack NS6146.

- (i) One (1) Lime Dumping Station identified as NSFH0249, one (1) Daytank Lime Silo, identified as NSDS0250 and one (1) Desulfurization Lime and one (1) Mag Container identified as NSDS0245, constructed in 1971. Emissions are controlled by baghouses NS3122, NS3206 and NS3111, exhausting through the stacks NS6121, NS6629, and NS6624.
- (j) Three (3) Continuous Casting Lines, identified as Lines A, B and C identified as, NCCA0284, NCCB0285 and NCCC0286, with a total maximum capacity of 600 tons per hour combined. Lines A and B were constructed in 1986. Line C was constructed in 1991. Emissions from the continuous casters exhaust to the Roof Monitor NC6635. Emissions from Line C are discharged back to the slab spray water area for control.
- (k) Fourteen (14) natural gas fired Ladle Preheaters, identified as NBLD0262, eleven (11) with a heat input capacity of 9 MMBtu per hour each and three (3) with a heat input of 10 MMBtu per hour each. Emissions exhaust through Roof Monitor NS6633.
- (l) Two (2) Hot Metal Ladle Skimmers, identified as NSLS0248, constructed in 1973. Emissions exhaust through Roof Monitor NS6631.
- (m) Two (2) Skimming Stations, consisting of a skimmer, identified as NSS10292 and skimmer deslagger, identified as NSS20287. Both were constructed in 1973. Emissions exhaust through Roof Monitor NS6633.
- (n) One (1) Slingot Station, identified as NSST0290, constructed in 1986, with emissions exhaust through Roof Monitor NS6634.

### **Hot Rolling Mill**

- (a) Four (4) reheat furnaces Nos. 1, 2, 3 and 4, identified as RMF10500, RMF20501, RMF30502 and RMF40503 commenced operation in 1967, with heat input capacity of 600 MMBtu per hour each. Each furnace is equipped to combust natural gas and fuel oil, with emissions exhausting through Stacks RM6500, RM6501, RM6502 and RM6503.
- (b) Two (2) waste heat boilers Nos. 1 and 2, identified as RB1B0508 and RB2B0509, commenced operation in 1967, with a heat input capacity of 226 MMBtu per hour each. The heat input from these boilers is derived from a combination of waste heat ducted from the reheat furnaces and the combustion of natural gas and coke oven gas. Emissions exhaust through Stacks HB6504, HB6505, RM6500, RM6501, RM6502 and RM6503, depending upon heat input configuration.
- (c) One (1) 84-inch Hot Strip Mill, identified as RMV00504, commenced operation in 1967, with a maximum capacity of 856 tons per hour, consisting of vertical and horizontal scale breakers, 5 roughing mills and 7-stand finishing mill with emissions exhausting through a Roof Monitor RM6630.

### **Continuous Pickling Lines**

- (a) One (1) 84-inch Pickle Line, the North Continuous Pickle Line, identified as HWPO0625, constructed in 1968, with a maximum capacity of 314 tons per hour consisting of four (4) pickle tanks and two (2) rinse tanks (hot and cold). Emissions at this pickle line are controlled by a fume exhaust scrubber, HW3545 exhausting to stack HW6525.



- (b) One (1) 80-inch Pickle Line, the South Continuous Pickle Line, identified as HMPO0589, constructed in 1948, with a maximum capacity of 91 tons per hour, consisting of three (3) pickle tanks and two (2) rinse tanks (hot and cold). Emissions are controlled by a fume exhaust scrubber, HM3540, exhausting to stack HM6520.

### Sheet Products Division

#### (a) North Sheet Mill

- (1) One (1) 5-Stand Cold Reduction Mill, identified as H5M50637, constructed in 1964, with a maximum capacity of 380 tons per hour, consisting of 5 Mill Stands. Emissions are controlled by fume collection H53547, exhausting to Stack H56527.
- (2) Twenty-six (26) 4-Stack "Box" Annealing Furnaces and 50 bases, identified as HTAF0813 through HTAF0838, constructed in 1964, with a heat input capacity of 10 MMBtu per hour each. These furnaces are direct fired with emissions exhausting through vent pipes HT6530 through HT6555.
- (3) One (1) 80-inch temper mill, constructed in 1964, with a maximum capacity of 213 tons per hour, exhausting fugitive emissions.
- (4) One (1) 80-inch Recoil Line, constructed in 1964, with a maximum capacity 114 tons per hour exhausting fugitive emissions.

#### (b) South Sheet Mill

- (1) Seventeen (17) 8-Stack "Box" Annealing furnaces and 66 bases, identified as HXBA0560 through HXBA0576, constructed in 1948. Eleven (11) furnaces have a heat input capacity of 15 MMBtu per hour each and the remaining six (6) are rated at 18 MMBtu per hour each. Emissions from these furnaces exhaust through the Roof Monitor HX6003.
- (2) One (1) 2-Stand Temper Mill, identified as H2M00579, constructed in 1974, with a maximum capacity of 89 tons per hour. Emissions exhaust through the Roof Monitor H26004.
- (3) One (1) No. 6 East Galvanizing Line, constructed in 1962, with a maximum capacity of 48 tons an hour, with one (1) annealing furnace identified as H6F10527 with a heat input of 45 MMBtu per hour and emissions through stack H66516. Also, contains one (1) Galvanneal Furnace identified as HF20529 with a heat input capacity of 20.0 MMBtu per hour and emissions exhausting through Roof Monitor H66006.
- (4) Two (2) hydrogen atmosphere batch annealing furnaces, with a total heat input capacity of 10.26 MMBtu per hour, constructed in 1997, consisting of three (3) fixed bases and two (2) movable cooling hoods.
- (5) One (1) 84-inch Hot Roll Temper Mill, constructed in 1967, with a maximum capacity of 124 tons per hour, exhausting fugitive emissions.
- (6) One (1) coil prep line, constructed in 1968, with a maximum capacity of 73 tons per hour, exhausting fugitive emissions

- (c) Electro-galvanizing Line (EGL)
  - (1) One (1) Electro-galvanizing Line (EGL), with one HCl pickle tank, No.1 Pickle tank, identified as HET20685, a cleaner section, a plating section and associated scrubber, with a maximum capacity of 60.5 tons per hour. Emissions from the Pickle Section are controlled by a fume scrubber HE3583 exhausting through stack HE6563. The single sided process for this coating line was constructed in 1977 and was modified in 1993 to a double sided process for coating.
  - (2) One (1) natural gas fired Boiler No. 1 in the EGL Boiler House, identified as HBB10675, constructed in 1978 and modified in 2001, with a heat input capacity of 39.147 MMBtu per hour, exhausting through stack HB6559.

### **Tin Mill Operations**

- (a) One (1) 6-Stand Cold Reduction Mill, identified as TRM00709, constructed in 1967, with a maximum capacity of 150 tons per hour. Emissions are controlled by a mist eliminator TR3600, exhausting to stack TR6575.
- (b) One (1) cleaning line, identified as No. 7 Cleaning Line, constructed in 1967, with a maximum capacity of 80 tons per hour. Emissions are controlled by a fume scrubber exhausting to a stack.
- (c) Two (2) Annealing Lines, No. 1 and No. 2, each containing an annealing furnace, identified as T1AF0794 and T2AF0799, No.1 constructed in 1950 and No. 2 constructed in 1959, with a maximum heat input capacities of 32 and 35 MMBtu per hour, respectively. Emissions exhaust to stacks T16609 and T26610. The No. 2 Continuous Anneal Line has a cleaning section with emissions collected in a fume scrubber exhausting through a stack.
- (d) Five (5) 4-Stack "Box" Annealing Furnaces and 12 bases, identified as TXAF0765 through TXAF0769, constructed in 1968. All furnaces have a heat input of 10.5 MMBtu per hour each. Emissions exhaust to stacks TX6580 through TX6584.
- (e) One (1) 48-inch Temper Mill, constructed in 1958, with a maximum capacity of 150 tons per hour, exhausting fugitive emissions. This unit has a dust filter that exhausts inside the building.
- (f) One (1) Double Reduction Mill with two (2) mill stands, identified as TDMO0742, constructed in 1963, with a maximum capacity of 75 tons per hour. Emissions are controlled by a mist eliminator D3603, exhausting to stack TD6595.
- (g) One (1) No.1 Tin Free Steel Line (TFS), constructed in 1950, with a maximum capacity of 24 tons per hour. The TFS line contains a Chemical Treatment Tank, identified as TFT10752, exhausting to Roof Monitor, TF6661 and a Chemical treatment rinse, identified as TFR00753, exhausting to stack TF6597.
- (h) One (1) No. 5 Electrolytic Tinning Line 5 (ETL), constructed in 1957, and with a maximum capacity of 50 tons per hour. The No. 5 ETL contains a Plating and Chemical Treatment Tank, identified as TFR00777, with emissions exhausting through Roof Monitor T56071.
- (i) One (1) No. 6 Electrolytic Tinning Line (6 ETL), constructed in 1966, with a maximum capacity of 120 tons per hour. The 6 ETL also contains a Plating and Chemical Treatment

Tank, identified as T6H00786, exhausting through Roof Monitor T56071.

- (j) One (1) Tin Anode Caster, constructed in 1965, with a maximum capacity of 0.57 tons per hour.
- (k) One (1) Tin Mill Recoil and inspection Line, constructed in 1967, with a maximum capacity of 14.8 tons per hour.

#### **No. 4 Boiler House**

- (a) Two (2) Boilers, No. 1 and No. 2, identified as O4B10459 and O4B20460, constructed in 1967, equipped to combust natural gas, blast furnace gas and fuel oil, with a maximum heat input of 500 MMBtu per hour each, exhausting through Stacks O46268 and O46269, respectively.
- (b) One (1) Boiler, No. 3, identified as O4B30461, constructed in 1967, equipped to combust blast furnace gas and natural gas, with a maximum heat input of 500 MMBtu per hour, exhausting through Stack O46270.

#### **Turboblower Boiler House (TBBH)**

- (a) Three (3) Boilers, No. 1, No. 2 and No. 3, identified as OTB10462, OTB20463 and OTB30464, constructed in 1948, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a maximum heat input of 400 MMBtu per hour each, exhausting through Stacks OT6271, OT6272 and OT6273, respectively.
- (b) One (1) Boiler, No. 4A, identified as OTB40465, constructed in 1990, with a maximum heat input of 244 MMBtu per hour when combusting natural gas and coke oven gas. Emissions exhaust through Stack OT6274, with NO<sub>x</sub> emissions monitored by a Predictive Emissions Monitoring System (PEMS).
- (c) One (1) Boiler No. 5, identified as OTB50466, constructed in 1958, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, with a maximum heat input of 450 MMBtu per hour, exhausting through Stack OT6275.
- (d) One (1) boiler, No. 6, identified as OTB60467, constructed prior to August 17, 1971, equipped to combust blast furnace gas and natural gas, with a maximum heat input capacity of 710 MMBtu per hour, exhausting through Stack OT6276.

#### **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

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- (h) In Plant Transfer by Front End Loader or Skip Hoist
- (i) Material Processing Facility
- (j) Crusher Fugitive Emissions
- (k) Material Processing Facility Building Openings
- (l) Dust Handling Equipment

### **Emission Units and Pollution Control Equipment**

The following facilities/units were listed in the original Part 70 Operating Permit Application as having no approvals. This Part 70 operating permit will satisfy the requirements for these units and control devices. The following equipment has been listed above and in permit D sections associated with their operations.

- (a) One (1) No. 1 BOP Shop CASbell/OB Lancing Stations (E, M and D)
- (b) One (1) No. 2 Q-BOP Shop LMF Number 3
- (c) Three (3) No. 2 Q-BOP Shop Ladle Preheater/Dryers (3 of 14 Preheater/Dryers)
- (d) One (1) Blast Furnace Gas Flare No. 1
- (e) One (1) Blast Furnace Gas Flare No. 2
- (f) One (1) Blast Furnace Gas Flare No. 4
- (g) One (1) Coke Oven Gas (COG) Flare on COG Distribution System

### **Insignificant Activities**

- (a) Specifically regulated insignificant activities:
  - (1) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
  - (2) Cleaners and solvents characterized as follows:
    - (A) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100EF) or;
    - (B) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
  - (3) The following VOC and HAP storage containers:
    - (A) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons.
    - (B) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
  - (4) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
  - (5) Any of the following structural steel and bridge fabrication activities:
    - (A) Cutting 200,000 linear feet or less of one inch (10) plate or equivalent.
    - (B) Using 80 tons or less of welding consumables.
  - (6) Conveyors as follows:
    - (A) Covered conveyor for coal or coke conveying of less than or equal to 360

tons per day;

- (7) Coal bunker and coal scale exhausts and associated dust collector vents.
  - (8) 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.
  - (9) Vents from ash transport systems not operated at positive pressure.
- (b) Other insignificant activities
- (1) Space heaters, process heaters, or boilers using the following fuels:
    - (A) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.
    - (B) 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.
  - (2) Equipment powered by internal combustion engines of capacity equal to or less than 500,000 Btu/hour, except where total capacity of equipment operated by one stationary source exceeds 2,000,000 Btu/hour.
  - (3) Combustion source flame safety purging on startup.
  - (4) 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.
  - (5) 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.
  - (6) Refractory storage not requiring air pollution control equipment.
  - (7) Equipment used exclusively for filling drums, pails or other packaging containers the lubricating oils, waxes, and greases.
  - (8) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings
  - (9) Closed loop heating and cooling systems.
  - (10) Rolling oil recovery systems.
  - (11) Groundwater oil recovery wells.
  - (12) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.
  - (13) Water runoff ponds for petroleum coke-cutting and coke storage piles.
  - (14) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.
  - (15) Water based adhesives that are less than or equal to 5% by volume of VOCs, excluding HAPs.
  - (16) Noncontact cooling tower systems with forced and induced draft cooling tower system not regulated under a NESHAP.
  - (17) Quenching operations used with heat treating processes.
  - (18) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
  - (19) Heat exchanger cleaning and repair.
  - (20) Process vessel degreasing and cleaning to prepare for internal repairs.
  - (21) Stockpiled soils from soil remediation activities that are covered and waiting transportation for disposal.

- (22) Paved and unpaved roads and parking lots with public access.
- (23) Asbestos abatement projects regulated by 326 IAC 14-10.
- (24) 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.
- (25) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.
- (26) 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.
- (27) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (28) On-site fire and emergency response training approved by the department.
- (29) Emergency generators as follows:
  - (A) Gasoline generators not exceeding 110 horsepower.
  - (B) Diesel generators not exceeding 1600 horsepower.
  - (C) Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.
- (30) Other emergency equipment: Stationary fire pumps.
- (31) Purge double block and bleed valves.
- (32) Filter or coalescer media changeout.
- (33) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (34) Conveyors as follows:
  - (A) Uncovered coal conveying of less than or equal to 120 tons per day.
  - (B) Underground conveyors.

### Existing Approvals

The source has been operating under previous approvals including, but not limited to the following:

- (a) IDEM-OAQ Permits
  - (1) CP089-2936-00133, issued July 2, 1993
  - (2) CP089-4041-00133, issued January 18, 1995
  - (3) R089-2158-00121, issued September 23, 1997
  - (4) CP089-3279-00121, issued January 10, 1994
  - (5) CP089-3663-00121, issued May 31, 1994
  - (6) CP089-4325-00121, issued February 24, 1995
  - (7) CP089-4442-00133, issued May 8, 1995
  - (8) CP089-6225-00121, issued August 7, 1996
  - (9) CP089-6226-00121, issued August 16, 1996
  - (10) CP089-8150-00121, issued July 20, 1997
  - (11) CP089-8606-00121, issued October 27, 1997
  - (12) AA089-9035-00121, issued November 12, 1997
  - (13) CP089-9568-00121, issued September 29, 1997
  - (14) CP089-10037-00121, issued August 26, 1998
  - (15) CP089-10095-00121, issued September 21, 1998
  - (16) MSM089-10160-00121, issued January 13, 2000
  - (17) MSM089-10551-00121, issued February 10, 1999
  - (18) EX089-11500-00121m issued August 1, 2001
  - (19) AA089-11953-00121, issued April 15, 2000
  - (20) MSM089-12137-0012, issued October 16, 2000
  - (21) EX089-12152-00455, issued May 25, 2000

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- (22) SSM089-12880-00121, issued August 26, 2001
- (23) MSM089-14424-00121, issued August 4, 2001
- (24) MSM089-14658-00121, issued October 2, 2001
- (25) EX089-14692-00121, issued December 17, 2001
- (26) AA089-14950-00121, issued November 30, 2001
- (27) MSM089-15121-00121, issued March 14, 2002
- (28) MSM089-15694-00121, issued August 21, 2002
- (28) EX089-15929-00121, issued June 20, 2002
- (29) SSM089-19678-00121, issued October 29, 2004

## (b) City of Gary Department of Environmental Affairs Permits

- (1) 02360, 02361, 02363 and 02364, issued February 22, 1994
- (2) 02370, 02372 and 02374, issued February 22, 1994
- (3) 02376 through 02397, issued February 22, 1994
- (4) 02411, 02412 and 02414, issued February 22, 1994
- (5) 02416 through 02422, issued February 22, 1994
- (6) 02424 through 02453 and 02456, issued February 22, 1994
- (7) 02459 through 02460, issued February 22, 1994
- (8) 02465, 02467 and 02468, issued February 22, 1994
- (9) 02479 through 02490 and 02495 through 02501, issued February 16, 1994
- (10) 02502 through 02505, 02509 and 02511 issued February 22, 1994
- (11) 02519 through 02523, 02528 and 02529, issued February 22, 1994
- (12) 02535 and 02538, issued February 22, 1994
- (13) 02545 through 02562 and 02568, issued February 22, 1994
- (14) 02572 and 02579, issued February 22, 1994
- (15) 02587 through 02605 and 02608, issued February 22, 1994
- (16) 02626 through 02628, issued February 22, 1994
- (17) 02643, 02645 and 02646, issued February 22, 1994
- (18) 12650 through 02653, issued February 22, 1994
- (19) 02661 and 02662, issued February 22, 1994

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.

All conditions from previous approvals were incorporated into this Part 70 permit except the following:

- (a) EX089-12152-00455, issued on May 25, 2000.

All the conditions in permit EX089-12152-00455

Reason not incorporated: The BOP Filter Cake Briquetting Facility no longer exists per comments received from the source on August 5, 2003.

- (b) Minor Source Modification 089-10551-00121, issued February 10, 1999

Condition D.1. Pursuant to 326 IAC 6-3, the particulate matter (PM) from the pet coke crusher, used as a second coal crusher shall comply with 326 IAC 6-3-2(c) using the following equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour and  
P = process weight rate in tons per hour

Reason not incorporated: Since the source is located in a nonattainment area for particulate matter, and its potential to emit PM is over 100 tons of particulate matter per year, the equipment at this source is subject to the requirements of 326 IAC 6-1. Therefore, 326 IAC 6-3 does not apply.

- (c) Prior and current Variance approvals of SO<sub>2</sub> limits have not been incorporated into this permit, because the SO<sub>2</sub> variance approvals are of short duration (usually one year), from state law only and do not change federally approved State Implementation Plan (SIP) requirements. Upon completion of the SO<sub>2</sub> rule changes to 326 IAC 7-4.1.1(c)(22), IDEM will submit the changes to the U.S. EPA as State Implementation Plan revisions. Once the State Implementation Plan revisions are approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised limits and conditions within thirty (30) days.

The modifications with conditions containing SO<sub>2</sub> variance limits that have not been included in this permit are as follows:

- (1) Minor Source Modification 089-12137-00121, issued October 16, 2000

Condition D.1.3 Pursuant to a Variance of 326 IAC 7-4-1.1(c)(22), effective March 8, 2000 to March 8, 2001, the SO<sub>2</sub> emission from the TBBH Boilers Nos. 1, 2, 3 and 5 Stacks (OT6271, OT6272, OT6273 and OT6275) shall be as follows:

- (A) SO<sub>2</sub> emission from TBBH Boilers Nos. 1, 2, 3 and 5 shall not exceed 0.182 lb/MMBtu (total) and 300.6 pounds per hour (total) when the coke oven gas desulfurization facilities is not operating.
- (B) SO<sub>2</sub> emission from TBBH Boilers Nos. 1, 2, 3 and 5 shall not exceed 0.182 lb/MMBtu (total) and 300.6 pounds per hour (total) when the coke oven gas desulfurization facility is operating.

- (2) Construction Permit 089-9568-00121, issued September 21, 1998

Condition D.1.3. Pursuant to a Variance of 326 IAC 7-4-1.1(c)(22), effective June 23, 1998 to June 23, 1999 or on the effective date of rule changes, whichever comes first, the SO<sub>2</sub> emissions from the TBBH No. 4A, shall be limited as follows:

- (A) When the coke oven gas desulfurization facility is not operating the SO<sub>2</sub> emissions shall be limited to 1.02 pounds of SO<sub>2</sub> per MMBtu of heat input and 248.9 pounds of SO<sub>2</sub> per hour.
- (B) When the coke oven gas desulfurization facility is operating, the SO<sub>2</sub> emissions shall be limited to 0.260 pound of SO<sub>2</sub> per MMBtu of heat input and 63.5 pounds of SO<sub>2</sub> per hour emitted.

- (3) Minor Source Modification 089-10160-00121, issued January 13, 2000

Condition D.1.5. Pursuant to a Variance of 326 IAC 7-4-1.1(c)(22), effective March 8, 1999 to March 8, 2000 the SO<sub>2</sub> emissions from the TBBH No. 6, shall be limited as follows:



- (A) When the coke oven gas desulfurization facility is not operating the SO<sub>2</sub> emissions shall be limited to 0.182 pound of SO<sub>2</sub> per MMBtu of heat input and 136.7 pounds of SO<sub>2</sub> per hour emitted.
  - (B) When the coke oven gas desulfurization facility is operating, the SO<sub>2</sub> emissions shall be limited to 0.182 pound of SO<sub>2</sub> per MMBtu of heat input and 136.5 pounds of SO<sub>2</sub> per hour emitted.
- (d) Prior variance approvals of PM<sub>10</sub> limits have not been incorporated, because the PM<sub>10</sub> variance approvals are of short duration (usually one year), from state law only and do not change federally approved State Implementation Plan requirements. IDEM submitted the new PM<sub>10</sub> State Implementation Plan rule revisions of 326 IAC 6 to the U.S. EPA. The U.S. EPA approved the PM<sub>10</sub> SIP revisions and they became effective May 21, 2004. The revised PM<sub>10</sub> SIP limits have been incorporated in this Part 70 permit.

The modifications with conditions containing PM<sub>10</sub> variance limits that have not been included in this permit are as follows:

- (1) Minor Source Modification 089-12137-00121, issued October 16, 2000  

Condition D.1.2. Pursuant to a variance of 326 IAC 6-1-10.1(d)(42), effective March 8, 2000 to March 18, 2001, the PM<sub>10</sub> emissions from TBBH-Boilers Nos. 1, 2, 3 and 8 stacks (OT6271, OT6272, OT 6273 and OT 6275) shall not exceed 0.037 pound per MMBtu (total) and 61.0 pounds per hour (total).
  - (2) Construction Permit 089-9568-00121, issued September 21, 1998  

Condition D.1.2. Pursuant to a Variance of 326 IAC 6-1-10.1(d)(42), effective June 23, 1998 to June 23, 1999, the PM<sub>10</sub> emissions from the TBBH No. 4A Stack S-1 shall be limited to 0.012 pound of PM<sub>10</sub> per MMBtu of heat input and 2.90 pounds of PM<sub>10</sub> per hour.
  - (3) Minor Source Modification 089-10160-00121, issued January 13, 2000  

Condition D.1.4. Pursuant to a Variance of 326 IAC 6-1-10.1(d)(36), effective March 8, 2000 to March 8, 2001, PM<sub>10</sub> emissions from the TBBH Boiler No. 6 shall not exceed 0.037 pound of PM<sub>10</sub> per MMBtu of heat input and 27.8 pounds of PM<sub>10</sub> per hour emitted.
  - (4) Minor Source Modification 089-14424-00121, issued August 2, 2001.  

Condition D.1.2. Pursuant to a Variance of 326 IAC 6-1-10.1(d)(42), dated April 30, 2001, PM<sub>10</sub> emissions from the EGL boiler shall not exceed 0.13 pound of PM<sub>10</sub> per MMBtu of heat input and burn natural gas only.
  - (5) Minor Source Modification 089-15694-00121, issued August 21, 2002  

Condition: D.1.1. Pursuant to the Variance Decision dated April 30, 2001, PM<sub>10</sub> emissions from the EGL boiler shall not exceed 0.13 lbs/hr and the boiler shall burn natural gas only.
- (e) EX089-14692-00121, issued on December 17, 2000.

All the conditions in permit EX089-14692-00121

Reason not incorporated: The synthetic fuel facility was never constructed per comments received from the source on August 5, 2003.

- (f) Significant Source Modification 089-14988-00121, issued July 19, 2002.
- (1) Condition 7: That the input natural gas to the Plate Mill Heat Treat Furnace shall be limited to 279.2 million cubic feet per year rolled on a daily basis. This production limitation is equivalent to NOx emissions of 25.1 tons per 365-day period, rolled on a daily basis.
  - (2) Condition 10(a) through (e): That a log of information necessary to document compliance with operation permit condition no. 7 for the Plate Mill Heat Treat Furnace shall be maintained. These records shall be kept for at least the past 36 month period and made available on request.
    - (A) A quarterly summary shall be submitted for the Plate Mill Heat Treat Furnace.
    - (B) Unless otherwise specified in this permit, any notice, report, or other submissions required by this permit for the Plate Mill Heat Treat Furnace shall be timely.
    - (C) All instances of deviations from any requirements of this permit for the Plate Mill Heat Treat Furnace must be clearly identified in such reports.
    - (D) Any corrective actions taken as a result of an exceedance of a limit for the Plate Mill Heat Treat Furnace, excursion from the parametric values, or a malfunction that may have caused excess emissions must be clearly identified in such reports.

Reason not incorporated: The ownership of the Plate Products Division (which includes the Plate Mill Heat Treat Furnace) at US Steel Corporation – Gary Works was transferred to ISG Corporation, according to letter dated March 19, 2004.

- (g) Construction Permit 089-8606-00121, issued October 20, 1997

Condition 7: The input natural gas to the Annealing Furnaces shall be limited to 3.1 million cubic feet per month. This production limitation is equivalent to NOx emissions of 0.22 tons per month. Therefore the Emission Offset rules, 326 IAC 2-3 will not apply.

Reason not incorporated: The limits are not expressed as 12-consecutive month period totals with compliance demonstrated at the end of each month. The natural gas usage limit has been revised in this permit to be complied with on an annual basis.

- (h) City of Gary Department of Environmental Affairs Permits 02479 through 02490 and 02495 through 02501, issued February 16, 1994

All the conditions in permits 02479 through 02490 and 02495 through 02501.

Reason not incorporated: The ownership of the Plate Products Division (which includes the Plate Mill Heat Treat Furnace) at US Steel Corporation – Gary Works was transferred to ISG Corporation, according to letter dated March 19, 2004.

- (i) Minor Source Modification 089-12137-00121, issued October 16, 2000.

Condition D.1.1 NOx Emissions Limitations

- (1) The Permittee shall not allow NOx emissions from TBBH boilers 1, 2 and 3 to exceed 135.1 TPY (combined total for all three boilers) during the combustion of natural gas or fuel oil.
- (2) The Permittee shall not allow more than 123,670.6 MMCF of Blast Furnace Gas (combined total for all three boilers) to be combusted in TBBH boiler no.'s 1, 2 and 3 per twelve consecutive month period rolled on a monthly basis. There will be a increase of 67 TPY NOx at TBBH boiler no.'s 1, 2 and 3 caused by the diversion of BFG from the flare. This will cause a decrease at the flare of 67 TPY NOx.

Compliance with these limitations will ensure that the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) do not apply.

Reason not incorporated: There are blanket limitations that are not enforceable. Also, item (2) is for informational purposes only. At the time of issuance of the Part 70 permit it will be 5 years since the modification was done. The NOx limitations in the modification are no longer applicable. Therefore, inclusion of the limitations is not necessary as this was a change at an existing unit. .

- (j) Minor Source Modification 089-10160-00121, issued January 13, 2000.

Condition D.1.1 (b) NOx Emissions Limitations

If the required stack test determines that NOx is emitted at a level greater than 0.14 pounds of NOx per MMBTU of heat input, then the natural gas usage in the TBBH boiler No. 6 shall not exceed 741.8 MMCF per twelve (12) consecutive month period with compliance demonstrated at the end of each month.

Reason not incorporated: A stack test was performed in March 9, 2001 and the SO<sub>2</sub> emissions were at a level less than 0.14 pound per hour.

- (k) Minor Source Modification 089-10551-00121, issued February 10, 1999 and . Administrative Amendment 089-11953-00121, issued April 15, 2000.

Condition D.1

- (a) The petroleum coke crusher in service as a coal crusher shall not discharge into the atmosphere particulate matter in excess of 0.007 grams per dry cubic meter (gr/dscm) (0.03 grains per dry standard cubic foot (gr/dscf)).
- (b) Any change or modification which may increase the potential to emit of PM or PM<sub>10</sub> to 25 or 10 tons per year or more from the equipment covered in this minor source modification must be approved by the Office of Air Management (OAM) before such change may occur.

Reason not incorporated:

Condition D.1.1(a) the 326 IAC 6-1-2(a) particulate matter rule language was updated in the revised PM<sub>10</sub> State Implementation Plan (SIP) and the crusher particulate limitations are covered in the revised SIP. Condition D.1(b) is not an enforceable condition.

- (l) Minor Source Modification 089-14658-00121, issued October 2, 2001, A089-14950-00121, issued November 30, 2001

Condition D.1.1

Pursuant to 326 IAC 6-1-2(a), the particulate matter (PM) emissions from the lime storage silo baghouse shall not exceed three-hundredths ( 0.03) grain per dry standard cubic foot. Compliance with this limit will limit Particulate and PM<sub>10</sub> emissions to less than 1.3 tons per year, making 326 IAC 2-3 (Emissions Offset) not applicable for the modification.

Reason not incorporated:

Condition D.1.1 The 326 IAC 6-1-2(a) particulate matter rule language was updated in the revised PM<sub>10</sub> State Implementation Plan (SIP) and the particulate limitations for the lime storage silo baghouse are covered in the SIP. This limit is less than the 15 tons of PM<sub>10</sub> and 25 tons of particulate per year, making 326 IAC 2-3 (Emission Offset) not applicable.

- (m) CP 089-8150-00121, issued July 23, 1997

Condition 11(a)

Pursuant to the PM<sub>10</sub> emissions for the RH vacuum degasser slag conditioning station shall be as follows:

- (1) The PM<sub>10</sub> emissions shall not exceed 0.007 grains per dry standard cubic foot at the outlet of its associated baghouse,
- (2) The PM<sub>10</sub> emissions shall not exceed 3.2 pounds per hour at the outlet of the baghouse, and
- (3) Operate only five (5) of the six (6) modules of the associated baghouse at a maximum of 125,000 actual cubic feet per minute at all times when this facility is in operation.
- (4) Compliance with these limits makes 326 IAC 2-3 Emission Offset rules not applicable.

Reason not incorporated:

Condition 11(a) The 326 IAC 6-1-2(a) particulate matter rule language was updated in the revised PM<sub>10</sub> State Implementation Plan (SIP) and the particulate limitations for the RH vacuum degasser slag conditioning station exhausting to the baghouse is covered in the PM<sub>10</sub> SIP. This SIP limit is less than the 15 tons of PM<sub>10</sub> and 25 tons of particulate per year, making 326 IAC 2-3 (Emission Offset) not applicable.

- (n) Minor Source Modification 089-15694-00121, issued August 21, 2002  
Condition D.1.5, To document compliance with condition D.1.1, the Permittee shall submit within thirty (30) days of the end of each calendar quarter, for EGL-1 Boiler the following:

Calculated PM<sub>10</sub> emission rate in pounds per hour, based on a daily average.

Reason not incorporated:

This requirement is not relevant nor is it enforceable.

- (o) Significant Source Modification 089-19678-00121, issued October 29, 2004

- (1) Condition D.1.3 second sentence After receiving the rule variance from 326 IA 7-

4-1.1, the Permittee shall submit a significant permit application to include the specific requirements in this subpart for coke oven gas combustion.

(2) Condition D.1.6(a)

Pursuant to the rule variance from 326 IAC 7-4-1.1(c)(22), issued on April 30, 2001 (the variance renewal expires on May 18, 2005), the Permittee shall comply with the following SO<sub>2</sub> emission limits for boilers No. 1 through No. 8 at the coke plant boiler house:

(1) The Permittee shall comply with the following SO<sub>2</sub> emission limits when the coke oven gas desulfurization facility is operating:

Unit	SO <sub>2</sub> Emission Limit (lbs/MMBtu)	SO <sub>2</sub> Emission Limit (lbs/hr)
Boilers No. 1 and No. 2	0.0006 (each)	-
Boiler No. 3	0.26	40.6
Boilers No. 4 and No. 5	0.26	87.9 (total)
Boiler No. 6	0.26	44.0
Boiler No. 7	0.26	42.1
Boiler No. 8	0.26	64.7

(2) The Permittee shall comply with the following SO<sub>2</sub> emission limits when the coke oven gas desulfurization facility is not operating:

Unit	Condition (See note)	Season	SO <sub>2</sub> Emission Limit (lbs/MMBtu)	SO <sub>2</sub> Emission Limit (lb/hr)
Boilers Nos. 1, 2, 3, and 7	---	---	0.0006 (each)	---
Boiler No. 6	---	---	1.27	214.6
Boiler No. 8	---	---	1.27	316.2
Boilers No. 4 and No. 5	(1) - Yes (2)- No	Jan – Apr	1.130	382 (total)
		May – Oct	1.183	400 (total)
		Nov & Dec	0.905	306 (total)
Boilers No. 4 and No. 5	(1) - Yes (2)- Yes	Jan – Apr	0.592	200(total)
		May – Oct	1.095	370total
		Nov & Dec	0.716	242(total)
Boilers No. 4 and No. 5	(1) - No (2)- No	Jan – Apr	0.512	173(total)
		May – Oct	1.139	385(total)
		Nov & Dec	0.704	238(total)
Boilers No. 4 and No. 5	(1) - NO (2)- Yes	Jan – Apr	0.638	231 (total)
		May – Oct	1.139	385(total)
		Nov & Dec	0.639*	216(total)

Note: (1) refers to when Blast Furnace No. 13 is combusting blast furnace gas.

(2) refers to when Turboblower Boiler Hose Boiler No. 4A or any Plate Mill Furnace is combusting coke oven gas.  
“-“ means no specific requirements.

Reason not incorporated: Prior and current Variance approvals of SO<sub>2</sub> limits have not been incorporated into this permit, because the SO<sub>2</sub> variance approvals are of short duration (usually one year), from state law only and do not change federally approved State Implementation Plan (SIP) requirements. Upon completion of the SO<sub>2</sub> rule changes to 326 IAC 7-4.1.1(c)(22), IDEM will submit the changes to the U.S. EPA as State Implementation Plan revisions. Once the State Implementation Plan revisions are approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised limits and conditions within thirty (30) days.

(p) Significant Source Modification 089-19678-00121, issued October 29, 2004

Condition D.1.4(b)

(b) Pursuant to 40 CFR 60.48b, the Permittee shall comply with one of the following monitoring conditions for boilers No. 9, No. 10, and the temporary rental boiler at the coke plant boiler house when combusting natural gas:

- (1) Pursuant to 40 CFR 60.48b(b), the Permittee shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; or
- (2) Pursuant to 40 CFR 60.48b(g)(2), the Permittee shall monitor the operating conditions for the affected boilers and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c).

Reason not incorporated: The language in this condition relates to compliance determination and was moved to the compliance determination portion of the D section in this permit. .

(q) Significant Source Modification 089-19678-00121, issued October 29, 2004

Condition D.1.12(c)

(c) The continuous monitors shall be operated according to Section C - Maintenance of Continuous Emission Monitoring Equipment. In the event that the nitrogen oxide continuous emissions monitor fails, the Permittee shall monitor the oxygen content and temperature once per hour. If the oxygen content or temperature is outside the range established in the latest compliance stack test, 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

Reason not incorporated: This requirement was replaced by the NO<sub>x</sub> monitoring requirement in 40 CFR 60.48b(f) in the Compliance Determination of the D section of this permit.

### Enforcement Issue

IDEM incorporated all equipment associated with this permit review into this Part 70 Permit. This

proposed permit is intended to satisfy the requirements of the construction permit rules.

**Recommendation**

The staff recommends to the Commissioner that the Part 70 permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete Part 70 permit application for the purposes of this review was received on December 13, 1996. Additional information was received on August 10, 2000, December 10, 2002, and November 8, 2004.

A notice of completeness letter was not mailed to the source.

**Potential to Emit of the Source**

Pursuant to 326 IAC 2-7-1(29), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM <sub>10</sub>	greater than 100
SO <sub>2</sub>	greater than 100
VOC	greater than 25
CO	greater than 100
NO <sub>x</sub>	greater than 100

HAP's	Potential To Emit (tons/year)
HCl	greater than 10
TOTAL	greater than 10

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and CO are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (d) Fugitive Emissions  
 Since this type of operation is one of the twenty-eight (28) listed source categories under

326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions - US Steel - Gary Works

The following table shows the actual emissions from US Steel - Gary Works. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	3628
PM <sub>10</sub>	3355
SO <sub>2</sub>	6952
VOC	2000.5
CO	89107
NOx	5123
Lead	1.0
HAP	---

### County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM <sub>10</sub>	attainment
SO <sub>2</sub>	nonattainment
NO <sub>2</sub>	attainment
1-hour Ozone	nonattainment
8-hour Ozone	nonattainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
- (1) On January 26, 1996 in 40 CFR 52.777(i), the U.S. EPA granted a waiver of the requirements of Section 182(f) of the CAA for Lake and Porter Counties, including the lower NOx threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when valuating the rule applicability relating to the 1-hour ozone standards. Lake County has been designated as severe nonattainment in Indiana for the 1-hour ozone standard. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offsets, 326 IAC 2-3. See the State Rule Applicability.
- (2) VOC and NOx emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as moderate nonattainment for the 8-hour standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (b) Lake County has been classified as nonattainment for SO<sub>2</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.



- (c) Lake County has been classified as attainment for PM10, NOx, CO and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions  
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset applicability.

### **Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.
- (b) Monitoring and related record keeping requirements which assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

### **Federal Rule Applicability**

#### **Coal Handling Operation**

- (a) The provisions of 40 CFR 60, Subpart A- General Provisions, which are incorporated by reference in 326 IAC 12, apply to the pet coke crusher used as a second coal crusher, except when otherwise specified in 40 CFR 60 Subpart Y.
- (b) The requirements of the New Performance Standards (NSPS) 326 IAC12 and 40 CFR 60.250 through 60.254 Subpart Y for Coal Preparation Plants are included in this permit for the pet coke crusher used as a second coal crusher. The pet coke crusher used as a second coal crusher processes more than 200 tons of coal per day and was constructed or modified after October 24, 1974.

#### **Coke Battery Operations**

- (a) The provisions of 40 CFR Part 63, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20-3, apply to the Coke Oven Batteries Nos. 2, 3, 5 and 7, except when otherwise specified in 40 CFR Part 63, Subpart L.
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 326 IAC 20, (40 CFR 63, Subpart L) are included in this permit for the Coke Oven Batteries Nos. 2, 3, 5 and 7. These coke oven batteries were owned and operated by an integrated steel mill producer on April 1, 1992 and listed in Appendix A of 40 CFR 63 Subpart L. See Section D.2 for detailed requirements.
- (c) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPS) for Coke Ovens: Pushing, Quenching and Battery Stacks, 40 CFR 63, Subpart CCCCC, are included in this permit for the Nos. 2, 3, 5 and 7 Coke oven batteries. These Coke oven batteries are existing units as of July 13, 2001 and located at an integrated iron and steel manufacturing facility that is a major source of Hazardous Air

Pollutants that has the potential to emit 10 tons or more of a single HAP and/or 25 tons or more of a combination of HAPS per year. See Section D.2 for detailed requirements.

### **Coke By-Product Recovery Plant**

- (a) The provisions of 40 CFR Part 61, Subpart A - General Provisions which are incorporated by reference in 326 IAC 14, apply to the Coke By-Product Recovery Plant, except when otherwise specified in 40 CFR Part 61, Subpart L (National Emission Standards for Benzene from Coke By Product Recovery Plants), 40 CFR Part 61, Subpart V (National Emission Standards for Equipment Leaks (Fugitive Emission Sources), and 40 CFR Part 61, Subpart FF (National Emission Standards for Benzene Waste Operations).
- (b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 61, Subpart L National Emission Standards for Benzene from Coke By Product Recovery Plants, is included in this permit for this Coke By-Product Recovery Plant. The equipment is located in a coke by-product plant. See Section D.3 of this Part 70 permit for detailed requirements.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 61, Subpart V, National Emission Standards for Equipment Leaks (Fugitive Emission Sources) Coke By Product Recovery Plants is included in this permit for this Coke By-Product Recovery Plant. The equipment is located in a coke by-product plant. See Section D.3 of this Part 70 permit for detailed requirements.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 61, Subpart FF National Emission Standards for Benzene Waste Operations are included in this permit for the Coke By-Product Recovery Plant. The equipment is located at coke by-product plant. See Section D.3 of the Part 70 permit for detailed requirements.
- (e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 61, Subpart J Equipment Leaks (Fugitive Emission Sources) of Benzene, are not included in this permit for this Coke By-Product Recovery Plant. The equipment is located in a coke by-product plant.
- (f) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Benzene Storage Vessels 40 CFR 61, Subpart Y are not included in this permit for this Coke By-Product Recovery Plant. The storage vessels are used for storing benzene at coke by-product facilities.

### **Number 2 Coke Plant Boiler House**

- (a) Nos.1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and the temporary rental Boilers at Number 2 Coke Plant Boiler House are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. The Nos.1, 2, 3, 4, 5, 6, 7 8, 9, 10 and the temporary rental Boilers at Number 2 Coke Plant Boiler House comprise one existing affected source for the large liquid fuel subcategory as defined by 40 CFR 63.7506(b), because they meet the criteria in the definition in 40 CFR 63.7575 for the limited liquid fuel subcategory.. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

- (b) Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and the temporary rental Boilers at Number 2 Coke Plant Boiler House are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. The Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 and the temporary rental Boilers at Number 2 Coke Plant Boiler House comprise one existing affected source for the large gaseous fuel subcategory as defined by 40 CFR 63.7506(b), because it meets the criteria in the definition in 40 CFR 63.7575 for the large gaseous fuel subcategory. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.
- (c) The provisions of 40 CFR Part 60, Subpart A - General Provisions which are incorporated by reference in 326 IAC 12, apply to the No. 9, No. 10 and the temporary rental Boilers at Number 2 Coke Plant Boiler House, except when otherwise specified in 40 CFR Part 60 Subpart Db.
- (d) The New Source Performance Standards (NSPS) 326 IAC 12 and 40 CFR Part 60.40b through 60.49b, Subpart Db is included in this permit for No. 9, No. 10 and the temporary rental Boilers at Number 2 Coke Plant Boiler House. The heat input capacity for each is greater than two hundred fifty (250) MMBtu per hour and were constructed after August 17, 1971. See Section D.5 of this permit for detailed requirements.

### **No. 3 Sinter Plant**

- (a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20, apply to the No. 3 Sinter Plant, except when otherwise specified in 40 CFR 63 Subpart FFFFF (Integrated Iron and Steel Manufacturing facilities).
- (b) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart FFFFF, National Emission Standards for Integrated Iron and Steel Manufacturing Facilities, is included in this permit for the No. 3 Sinter Plant. The No. 3 Sinter Plant is an existing unit as of July 13, 2001 and is located at an integrated iron and steel manufacturing facility that is a major source of Hazardous Air Pollutants that has the potential to emit 10 tons or more of a single HAP and/or 25 tons or more of a combination of HAPS per year. See Section D.6 of this Part 70 permit for detailed requirements.

### **Blast Furnaces**

- (a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20, apply to the Nos. 4, 6, 8, and 13 Blast Furnaces, except when otherwise specified in 40 CFR 63 Subpart FFFFF (Integrated Iron and Steel Manufacturing facilities).
- (b) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart FFFFF, National Emission Standards for Integrated Iron and Steel Manufacturing Facilities, is included in this permit for the Nos. 4, 6, 8 and 13 Blast Furnaces and casthouses. The Nos. 4, 6, 8 and 13 Blast Furnaces and casthouses are existing units as of July 13, 2001 and is located at an integrated iron and steel manufacturing facility that is a major source of Hazardous Air Pollutants that has the potential to emit 10 tons or more of a single HAP and/or 25 tons or more of a combination

of HAPS per year. See Section D.7 of this Part 70 permit for detailed requirements.

- (c) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart DDDDD National Emission Standards for Commercial, Industrial and Institutional Boiler are not included in this permit. In accordance with the provisions in 40 CFR 63.7491 (k) stoves at Blast Furnaces are exempt from this NESHAP.

#### **Number 1 BOP Shop**

- (a) The requirements of the New Source Performance Standards (NSPS) of 40 CFR 60 Subpart N, Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces is not included in this permit for the BOP Furnace Operations. Construction of these units commenced prior to June 11, 1973.
- (b) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20, apply to the No. 1 BOP Shop , except when otherwise specified in 40 CFR 63 Subpart FFFFF(Integrated Iron and Steel Manufacturing facilities).
- (c) The National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart FFFFF, National Emission Standards for Integrated Iron and Steel Manufacturing Facilities are included in this permit for the No. 1 BOP Shop. The No. 1 BOP Shop is an existing unit as of July 13, 2001 and is located at an integrated iron and steel manufacturing facility that is a major source of Hazardous Air Pollutants that has the potential to emit 10 tons or more of a single HAP and/or 25 tons or more of a combination of HAPS per year. See Section D.8 of this permit for the detailed requirements.

#### **Number 2 Q-BOP Shop**

- (a) The requirements of the New Source Performance Standards (NSPS) 40 CFR 60 Subpart N, Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces are not included in this permit for the Q-BOP Furnace Operations. Construction of these units commenced prior to June 11, 1973.
- (b) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference in 326 IAC 20, apply to the No. 2 Q-BOP Shop , except when otherwise specified in 40CFR 63 Subpart FFFFF(Integrated Iron and Steel Manufacturing facilities).
- (c) The National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart FFFFF, National Emission Standards for Integrated Iron and Steel Manufacturing Facilities are included in this permit for the No. 2 Q-BOP Shop. The No. 2 Q-BOP Shop is an existing unit as of July 13, 2001 and is located at an integrated iron and steel manufacturing facility that is a major source of Hazardous Air Pollutants that has the potential to emit 10 tons or more of a single HAP and/or 25 tons or more of a combination of HAPS per year. See Section D.9 of this permit for detailed requirements.

#### **Hot Rolling Mill**

The requirements of New Source Performance Standards (NSPS) 40 CFR 60 Subpart Db, Standards of Performance for industrial-Commercial -Institutional Steam Generating units with a heat input capacity of greater than 100 MMBtu per hour are not included in this permit for the Nos. 1 and 2 waste heat boilers (RB1B0508 and RB2B0509). Construction of these units commenced after June 19, 1984, but on or before June 19, 1986.

**Two Continuous Pickle Lines**

- (a) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants (40 CFR 63 Subpart CCC) are included in this permit for the 84-inch and 80-inch Continuous Pickle Lines, because they are existing steel pickling facilities that pickle carbon steel using hydrochloric acid solution that contains 6 percent or more by weight HCl and is at a temperature of 100° F or higher. See section D.11 of this permit for specific detailed requirements.
- (b) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Plants (40 CFR 63 Subpart CCC) are included in this permit for the HCl tanks, because hydrochloric acid storage vessels are considered as part of the affected source. See Section D.11 of this permit for specific detailed requirements

**Electro-Galvanizing Line**

- (a) The provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12, apply to the Electro-galvanizing Line (EGL-1) natural gas fired Boiler, except when otherwise specified in 40 CFR 60 Subpart Dc.
- (b) The New Source Performance Standard (NSPS) 326 IAC 12, (40 CFR 60.40c through 60.49c, Subpart Dc) was included in this permit for EGL-1 natural gas fired boiler. The heat input capacity is greater than ten 10 MMBtu per hour but less than one hundred (100) MMBtu per hour and was modified after June 8, 1989.

**Tin Mill Operations**

The National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subpart N, National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks, were not included in this permit for the Continuous Chromium Electroplating. The electroplating of steel at steel mills would be addressed in a future rule, per a letter dated April 11, 1996 from George Czerniack, US EPA Region 5 to Charles Carson at US Steel-Gary Works and Felicia George, Asst. Commissioner, IDEM-OAQ.

**Boiler House No. 4**

- (a) The New Source Performance Standards (NSPS) 40 CFR 60.40 through 60.49 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators was not included in this permit for Nos.1, 2 and 3 Boilers at Boiler House No. 4. Construction of these units commenced prior to August 17, 1971.
- (b) Nos.1, and 2 Boilers at Boiler House No. 4 are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. The Nos.1, and 2 Boilers at Boiler House No. 4 comprise one existing affected source for the limited use liquid fuel subcategory as defined by 40 CFR 63.7506(b), because they meet the criteria in the definition in 40 CFR 63.7575 for the limited use liquid fuel subcategory.. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

- (c) Nos. 1, 2 and 3 Boilers at Boiler House No. 4 are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. The Nos. 1, 2 and 3 Boilers at Boiler House No. 4 comprise one existing affected source for the large gaseous fuel subcategory as defined by 40 CFR 63.7506(b), because it meets the criteria in the definition in 40 CFR 63.7575 for the large gaseous fuel subcategory. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.

### **Turboblower Boiler House (TBBH)**

- (a) The New Source Performance Standards (NSPS) 40 CFR 60.40 through 60.49, Subpart D, Standards for fossil-fuel-fired Steam Generating Units for which construction commenced after August 17, 1971 were not included in this permit for the TBBH Boilers Nos. 1, 2 and 3. Construction of TBBH Boilers Nos. 1, 2 and 3, with a heat input of 400 MMBtu per hour each commenced before August 17, 1971.
- (b) Nos. 1, 2, 3 and 5 Boilers at Turboblower Boiler House are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. The Nos. 1, 2, 3 and 5 Boilers at Turboblower Boiler House comprise one existing affected source for the limited use liquid fuel subcategory as defined by 40 CFR 63.7506(b), because they meet the criteria in the definition in 40 CFR 63.7575 for the limited use liquid fuel subcategory. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.
- (c) Nos. 1, 2, 3, 4A, 5 and 6 Boilers at Turboblower Boiler House are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. The Nos. 1, 2, 3, 4A, 5 and 6 Boilers at Turboblower Boiler House comprise one existing affected source for the large gaseous fuel subcategory as defined by 40 CFR 63.7506(b), because it meets the criteria in the definition in 40 CFR 63.7575 for the large gaseous fuel subcategory. The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected sources after the effective date of 40 CFR 63, Subpart DDDDD, except when otherwise specified in 40 CFR 63 Subpart DDDDD. This rule is not yet published in the *Federal Register*. A copy of the signed, final rule is available at <http://www.epa.gov/ttn/atw/boiler/boilerpg.html>.
- (d) The provisions of 40 CFR 60 Subpart - General Provisions, which are incorporated by reference in 326 IAC 12, apply to the for TBBH Boiler No. 4A and TBBH Boiler No. 6, except when otherwise specified in 40 CFR 60 Subpart Db and Subpart D, respectively.
- (e) The New Source Performance Standards (NSPS) 326 IAC 12 and 40 CFR 60.40b through 60.49b, Subpart Db, were included in this permit for the TBBH Boiler 4A. The heat input is greater than one hundred (100) MMBtu per hour m but less than two hundred fifty (250) MMBtu per hour and was modified after June 19, 1984.

Permit reviewer: Gail McGarrity

- (f) The New Source Performance Standards (NSPS) 326 IAC 12 and 40 CFR 60.40 through 60.49, Subpart D, Standards for fossil-fuel-fired Steam Generating Units for which construction commenced After August 17, 1971 was not included in this permit for TBBH Boiler No. 5 because, construction of TBBH Boilers No. 5, with a heat input of 450 MMBtu per hour commenced before August 17, 1971. See Section D.15 of this permit for detailed requirements.
- (g) The New Source Performance Standards (NSPS) 326 IAC 12 and 40 CFR Part 60.40 through 60.49, Subpart D is included in this permit for TBBH Boiler No. 6. The heat input capacity is greater than two hundred fifty (250) MMBtu per hour and was modified after August 17, 1971. See Section D.15 of this permit for detailed requirements.

### **State Rule Applicability Entire Source**

#### 326 IAC 1-6-3 (Preventive Maintenance Plan)

The source has submitted a Preventive Maintenance Plan (PMP) on December 12, 1996. This PMP has been verified to fulfil the requirements of 326 IAC 1-6-33 (Preventive Maintenance Plan).

#### 326 IAC 2-2 Prevention of Significant Deterioration (PSD) and 326 IAC 2-3 (Emission Offset)

This source is an existing major source with the potential to emit over 100 tons of pollutants per year.

#### 326 IAC 2-6 Emission Reporting

This source is subject to 326 IAC 2-6 (Emission Reporting), because it is located in Lake County and has the potential to emit more than 2,500 tons of NOx and 250 tons of VOC per year. This statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6-3 and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period identified in 326 IAC 2-6.

#### 326 IAC 5-1 Opacity Limitations

This source is subject to 326 IAC 5-1-2, 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%) 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.

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Limitations for USS – Gary Works

The new Lake County PM<sub>10</sub> Emission Limitations for USS – Gary Works State Implementation Plan (SIP) revision approved by .the U.S. EPA and became effective May 21, 2004 incorrectly states some PM<sub>10</sub> emission limits in grains per dry standard cubic foot per minute (dscfm). The correct units for the emission limitations are grains per dry standard cubic foot (dscf). The correct PM<sub>10</sub> Emission Limitations units of grains per dry standard cubic foot (dscf) are incorporated in this permit.

### 326 IAC 6-1-10.1(l) and 326 IAC 6-1-10.1(u) Continuous Compliance Plan

- (a) Pursuant to 326 IAC 6-1-10.1(l), 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 6-1-10.1 (p) through (r) or applicable procedures in the CCP.
- (b) Pursuant to 326 IAC 6-1-10.1(u), the Permittee shall update the CCP, as needed, retain a copy 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 to IDEM, OAQ within thirty (30) days of the update.
- (c) Pursuant to 326 IAC 6-1-10.1, failure to submit a CCP, maintain all information required by the CCP at the source, or submit updates to a CCP is a violation of 326 IAC 6-1-10.1.

### 326 IAC 6-1-11.1 Lake County Fugitive Particulate Control Requirements

- (a) Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Control Requirements), the particulate emissions from source wide activities shall meet the following requirements:
  - (1) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
  - (2) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
  - (3) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). 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 material processing facility as defined in 326 IAC 6-1-11.1(c) of material transfer for transportation within or outside the source property including, but not limited to the following:
    - (A) Transfer of slag product for use by asphalt plants
      - (i) From a storage pile to a front end loader, and
      - (ii) From a front end loader to a truck.
    - (B) Transfer of sinter blend for use at the sinter plant:
      - (i) From a storage pile to a front end loader,
      - (ii) From a front end loader to a truck, and
      - (iii) From a truck to the initial processing point.
    - (C) Transfer of coal for use at a coal processing line:
      - (i) From a storage pile to a front end loader, and
      - (ii) From a front end loader to the initial coal processing line.

Compliance with any operation lasting less than three minutes shall be determined as an average of consecutive operations recorded at fifteen second intervals for the duration of the operation.

- (4) The opacity of fugitive particulate emissions from slag and kish handling when transferring from pots and trucks shall not exceed twenty percent (20%) on a six minute average.



- (5) The opacity of fugitive particulate emissions from continuous transfer of material onto or and out of storage piles shall not exceed ten percent (10%) on a three minute average.
- (6) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average. These limitations may not apply during periods, when application of fugitive particulate control measures is either ineffective or unreasonable due to sustained very high wind speeds. During such periods, the company 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 opacity limitation was not reasonable given prevailing wind conditions.
- (7) 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.
- (8) 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%).
- (9) 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.
- (10) The PM<sub>10</sub> emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (11) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (12) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.
- (13) The PM<sub>10</sub> emissions from each material processing stack shall not exceed 0.022 grains per dry standard cubic foot and ten percent (10%) opacity standard.
- (14) Fugitive particulate material from the material facilities except at a crusher in which a capture system is not used shall not exceed ten percent (10%) opacity.
- (15) Fugitive particulate matter from a crusher in which a capture system is not user shall not exceed fifteen percent (15%) opacity.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on January 28, 2000.

#### 326 IAC 6-1-11.2 Lake County Particulate Emissions: Contingency Measures

This source is subject to 326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures), because it is subject to the requirements of 326 IAC 6-1-11.1. Pursuant to this rule, the source shall comply with (h), (i), (k), (l), (m), (o), (p) and (q) of this rule.

#### 326 IAC 6-3 Process Operations Particulate Limitations

The requirements of 326 IAC 6-3-2 are not included in this permit, because the limitations established by this rule are inconsistent with applicable limitations contained in 326 IAC 6-1 for Lake County sources. Therefore, 326 IAC 6-3 does not apply.

#### 326 IAC 6-4 Fugitive Dust Emissions

This source is subject to the requirements of 326 IAC 6-4 and 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.

#### 326 IAC 7-4-1.1(c)(22)(K) through (M)

The source is subject to the requirements of 326 IAC 7-4-1.1(c)(22)(K) through (M) and shall comply with the following:

- (a) All the facilities at US Steel - Gary Works are subject to the provisions of 326 IAC 7-4-1.1(c)(22)(K) through (M), the total actual heat input from coke oven gas, coal, and fuel oil usage at all facilities operating shall not exceed the following:
  - (1) Two thousand seven hundred forty (2,740) million Btu per hour based on five hundred ten (510) million Btu per million cubic feet of coke oven gas,
  - (2) Twenty-six (26) million Btu per ton of coal, and
  - (3) One hundred fifty (150) million Btu per thousand gallons of fuel oil;
  - (4) The sulfur dioxide emission rate from coke oven gas, except at the Coke Battery Underfire Stacks Nos. 2, 3, 5 and 7 (Section D.2), and from fuel oil shall not exceed one and seven-hundredths (1.07) pounds per million Btu.
- (b) A summary of the calculated sulfur dioxide emission rates in pounds per MMBtu and in pounds per hour, the types of fuel and actual fuel usage for each day and any violations, for each combustion unit, furnace boiler or process operation at each facility for each day during the calendar quarter shall be submitted to IDEM within thirty (30) days at the end of each calendar quarter.
- (c) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a SIP revision. Once the State Implementation Plan (SIP) revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

### **State Rule Applicability - Individual Facilities**

#### **Coal Handling Operations**

326 IAC 6-1-10.1(d)(36), 326 IAC 6-1-10.2(9) and 326 IAC 11-3-2(a) Lake County PM<sub>10</sub> Emission Requirements

The No. 2 Coke Battery Precarbonization Lines A, B, and C, ESP stacks CH6034, CH6035 and CH6037 and No. 3 Coke Battery Precarbonization Lines A, B, and C, ESP Stacks CH6028, CH6029 and CH6031 are subject to the provisions of 326 IAC 6-1-10.1(d)(36), 326 IAC 6-1-

10.2(9) and 326 IAC 11-3-2(a).

Pursuant to 326 IAC 6-1-10.1(d)(36), 326 IAC 6-1-10.2(9) and 326 IAC 11-3-2(a) the PM<sub>10</sub> emissions from these facilities shall not exceed as follows:

- (a) The PM<sub>10</sub> emissions from the No. 2 Coke Battery Precarbonization Lines A, B, and C, ESP stacks CH6034, CH6035 and CH6037 combined shall not exceed a total of 62.5 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the No. 3 Coke Battery Precarbonization Lines A, B, and C ESP stacks CH6028, CH6029 and CH6031 combined shall not exceed a total of 62.5 pounds per hour.

#### 326 IAC 6-1-2(a) Particulate Emissions Limitations

The Coal Car Bottom Thaw Shed, Coal Car Side thaw Station and the pet coke crusher used as a second coal crusher are subject to the provisions of 326 IAC 6-1-2 (a), because the source wide PM potential to emit (PTE) is greater than 100 tons per year. The emissions shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

#### 326 IAC 6-1-10.2(c)(9) (A) and (B) Precarbonization Emission Requirements

- (a) Pursuant to 326 IAC 6-1-10.2(c)(9)(A), the particulate emissions from precarbonization towers shall be limited by the emission limitations in 326 IAC 6-1-10.1(d).
- (b) Pursuant to 326 IAC 6-1-10.2(c)(9)(B), the visible emissions from the precarbonization towers shall comply with the requirements set forth in 326 IAC 5.

#### 326 IAC 11-3-2(a)(1) and (2) Coke Oven Batteries Emission Limitations - Precarbonization

- (a) Pursuant to 326 IAC 11-3-2(a)(1), particulate emissions from precarbonization towers shall be limited by the emission limitations determined 326 IAC 6-1.
- (b) Pursuant to 326 IAC 11-3-2(a)(2), , the visible emissions from any precarbonization unit shall comply with the requirements set forth in 326 IAC 5-1.

#### 326 IAC 6-1-10.1(g)(3) and 326 IAC 6-1-10.2(9) Opacity Limitations

- (a) Pursuant to 326 IAC 6-1-10.1(g)(3) and 326 IAC 6-1-10.2(9) continuous opacity monitors are to be installed and operated on the six (6) Precarbon ESP stacks CH6034, CH6035, CH6037, CH6028, CH6029 and CH6031. A compliance test protocol incorporated (May 16, 1997) by IDEM, as Exhibit C of the Agreed Order issued March 22, 1996 is an alternative monitoring requirement for the Precarbonization Systems at Gary Coke Division, in lieu of installing and operating Continuous Opacity Monitors (COMs) on the six (6) Precarbon ESP stacks CH6034, CH6035, CH6037, CH6028, CH6029 and CH6031.
- (b) Pursuant to a protocol incorporated (May 16, 1997) by IDEM, as Exhibit C of the Agreed Order issued March 22, 1996, a PM<sub>10</sub> test schedule in Condition. D.1.10 of this permit is the alternative monitoring requirement for the Precarbonization Systems at Gary Coke Division, in lieu of installing and operating Continuous Opacity Monitors (COMs) on the six (6) Precarbon ESP stacks CH6034, CH6035, CH6037, CH6028, CH6029 and CH6031, as required by 326 IAC 6-1-10.1(g)(3).
- (c) Pursuant to Revised Source Testing Protocol for Nos. 2 and 3 Precarbonization Lines for Coke Batteries No. 2 and 3, respectively, in a letter dated June 29, 1998 the Permittee

shall conduct the operation of a single Precarbonization Line through two ESPs. In order for the testing to represent the worst case emissions, the Permittee shall operate a single precarbon line through its associated ESP line with the tie lines between ESPs closed during the test. The results of this testing will be considered in compliance if the average PM<sub>10</sub> (filterable plus condensable) are less than 31.25 pounds per hour.

#### 326 IAC 7-4-1.1 Sulfur Dioxide SO<sub>2</sub> Limitations

The Coal Car Bottom Thaw Shed (CHY00071) and the Coal Car Side Thaw Station (CHT00001), are not subject to the provisions of 326 IAC 7-4-1.1(a), because the potential to emit SO<sub>2</sub> is less than twenty-five (25) tons or ten (10) pounds per hour.

#### **Coke Batteries No. 2, 3, 5 and 7**

#### 326 IAC 6-1-10.1(d) (36), 326 IAC 6-1-10.2(8) and 326 IAC 11-3-2(i), Lake County PM<sub>10</sub> Emission Requirements

The Nos. 2, 3, 5 and 7 Coke Battery underfiring stacks and Coke Batteries 5/7 baghouse stack CP6050 are subject to the provisions of 326 IAC 6-1-10.1(d)(36), 326 IAC 6-1-10.2(8) and 326 IAC 11-3-2(i),.

Pursuant to 326 IAC 6-1-10.1(d) (36), 326 IAC 6-1-10.2(8) and 326 IAC 11-3-2(i), The PM<sub>10</sub> emissions from these facilities shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Coke Battery number 2 underfiring stack CP6040 shall not exceed 32.30 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Coke Battery number 3 underfiring stack CP6045 shall not exceed 25.50 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Coke Battery number 5 underfiring stack CP6049 shall not exceed 24.70 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Coke Battery number 7 underfiring stack CP6053 shall not exceed 21.30 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Coke Battery number 5/7 pushing emissions control baghouse shall not exceed 0.017 pound per ton coke produced and 1.28 pounds per hour.

#### 326 IAC 6-1-10.2 Lake County PM<sub>10</sub> Coke Battery Emission Requirements

The coke oven batteries Nos. 2, 3, 5 and 7 are subject to the provisions of 326 IAC 6-1-10.2. Coke Batteries Nos. 2, 3, 5 and 7 shall comply with the following:

- (a) No visible emissions shall be permitted from more than ten percent (10%) of the observed coke oven doors on any coke oven battery within Lake County.
- (b) The visible emissions from the coke oven batteries Nos. 2, 3, 5 and 7 charging operations shall comply with the following:
  - (1) No visible emissions shall be permitted from the charging system for more than a cumulative total of one hundred twenty-five (125) seconds during five (5) consecutive charging periods.

- (2) A “charging system”, means the equipment required to add coal to a coke battery including a larry car, charge ports, jumper pipe and off take pipe.
- (c) The emissions from the coke oven batteries Nos. 2, 3, 5 and 7 pushing operations shall comply with the following:
  - (1) The opacity emissions from the coke-side of an oven to be pushed, before the first movement of the coke from the oven to the coke car begins, shall not exceed twenty percent (20%).
  - (2) The opacity emissions during the pushing operation shall not exceed twenty percent (20%). The pushing shall be considered to begin with the first movement of coke from the oven into the coke car and to end when the quench car enters the quench tower.
  - (3) The PM<sub>10</sub> emissions from the pushing control devices: No. 2 and No. 3 Batteries Pushing Emissions Control Systems (PECS) CP3034 and CP3038 and No. 5 and No. 7 Coke Batteries Pushing Process Baghouse Stack CP6050 shall not exceed four-hundredths (0.04) pound per ton of coke pushed.
- (d) The emissions from the coke oven batteries Nos. 2, 3, 5 and 7 quenching operations shall comply with the following:
  - (1) The quench water as applied to the coke shall not exceed one thousand five hundred (1,500) milligrams per liter of total dissolved solids (TDS).
  - (2) The Permittee shall submit the following information regarding its quenching operation in a CCP required to be submitted by 326 IAC 10.1(l):
    - (A) The source of quench water, for example, Lake Michigan water only, or a mixture of Lake Michigan water, spent quench water, process water and miscellaneous sources of non process water.
    - (B) The volume of quench water and proportion of each source of water.
  - (3) Pursuant to 326 IAC 6-1-10.2(c)(7)(C), all coke oven towers shall be equipped with baffles. Baffles shall cover ninety-five percent (95%) or more of the cross-sectional area of the exhaust vent or stack for straight quench towers and must be maintained in operable condition. For offset quench towers numbers 2 and 3 at US Steel, the number and arrangement of baffles in the tower shall be maintained as designed. Compliance with the quench tower baffle requirement shall be determined by comparison of the number and arrangement of baffles with the submitted plans.
- (e) No visible emissions shall be permitted from more than three percent (3%) of the total charge port lids on operating ovens of a coke oven battery.
- (f) The visible emissions from the Off take Piping shall comply with the following::
  - (1) No visible emissions shall be permitted from more than five percent (5%) of the total off take piping on any coke oven battery within Lake County.
  - (2) At no time, shall the visible emissions from any gooseneck cap opening exceed

twenty percent (20%) .

- (3) An exclusion from the twenty percent (20%) gooseneck cap opacity limit shall be allowed for two (2) minutes after a gooseneck cap is opened.
- (g) Visible emissions from coke oven batteries Nos. 2, 3, 5 and 7 gas collector mains shall comply with the following:
  - (1) No visible emissions shall be permitted from the gas collector mains.
  - (2) Caps on the collector main shall be exempt from requirement during maintenance.

#### 326 IAC 6-1.10.2(b)(8) Lake County PM<sub>10</sub> Coke Emission Limitations – Underfire Emissions

- (a) Pursuant to 326 IAC 6-1.10.2(b)(8)(A), particulate emissions from the underfire stacks shall be limited by the emission limitations contained in 326 IAC 6-1-10.1(d).
- (b) Pursuant to 326 IAC 6-1.10.2(b)(8)(B), visible emissions from underfire stacks shall comply with the requirements set forth in 326 IAC 5-1-2.

#### 326 IAC 11-3-2 Coke Oven Battery Emission Limitations

The coke oven batteries Nos. 2, 3, 5 and 7 are subject to the provisions of 326 IAC 11-3-2, 326 IAC 6-1-10.2(8) and 326 IAC 6-1-10.1, because these facilities were constructed or modified prior to June 19, 1979. The Coke Batteries Nos. 2, 3, 5 and 7 shall each comply with the following requirements:

- (a) The visible emissions from the charging system (including any open charge port, off take system, mobile jumper pipe or larry car) shall not be visible for more than a cumulative total of one hundred twenty-five (125) seconds during five (5) consecutive charging periods.
- (b) Visible emissions shall not be permitted from more than three percent (3%) of the total charge port lids.
- (c) No visible emissions shall be permitted from more than five percent (5%) of the total off take piping on any coke oven battery within Lake County.
- (d) No visible emissions shall be permitted from gas collector main on any coke oven battery within Lake County.
- (e) Visible emissions shall not be permitted from more than ten percent (10%) of the total coke oven doors on any coke oven battery within Lake County.
- (f) The coke oven batteries Nos. 2, 3, 5 and 7 pushing emissions requirements shall comply with the following:
  - (1) All coke oven batteries shall be equipped with a device capable of capturing and collecting coke-side particulate matter such that the effluent gas emissions contain no more than four-hundredths (0.04) gram per two (2.0) kilogram of coke pushed.
  - (2) Such devices shall be designed and operated in compliance with an operating

permit to collect ninety percent (90%) of the pushing emissions. If the construction and design of the device have been approved by the commissioner by granting the permit, the device, if operated properly in compliance with the permit conditions, will be assumed to be collecting ninety percent (90%) of the pushing emissions.

- (g) The coke oven batteries Nos. 2, 3, 5 and 7 quenching emissions requirements shall comply with the following:
- (1) Quench towers serving existing coke oven batteries shall have no visible emissions from the quenching of coke with the direct application of water to hot coke unless quenching is conducted under a tower equipped with efficient baffles to impede the release of particulates into the atmosphere. Efficient baffles are baffles taking the form of slats, louvers, screens, or other impediments placed in a configuration within a quench tower to force a change of direction and reduction of velocity of the steam plume to aid in the reduction of particulate matter emitted.
  - (2) The quench water makeup total dissolved solids content shall not exceed one thousand five hundred (1,500) milligrams per liter.
- (h) The visible emissions and particulate emissions from the underfire stacks shall comply with the requirements of 326 IAC 5-1 and 326 IAC 6-1, respectively.

#### 326 IAC 11-3-3 Coke Oven Identification

The coke oven batteries are subject to the provisions of 326 IAC 11-3-3, because these facilities were constructed or modified prior to June 19, 1979. The identity of each coke oven shall be maintained in such a manner that it is easily and readily visible from the topside and on each coke and push-side on every battery.

#### 326 IAC 7-4-1.1(c)(22)(E) Sulfur Dioxide (SO<sub>2</sub>) Limitations

- (a) The Nos. 2, 3, 5 and 7 Coke Battery Underfiring Stacks (CP6040, CP6045, CP6049 and CP6043) are subject to the provisions of 326 IAC 7-4-1.1(c)(22)(E). The SO<sub>2</sub> emissions from the Coke Battery underfiring stacks shall not exceed 1.3 pounds of SO<sub>2</sub> per MMBtu of heat input each.
- (b) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the State Implementation Plan revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

#### 326 IAC 2-2 and 326 IAC 2-3 PSD and Emissions Offsets Nitrogen Oxide (NO<sub>x</sub>) Limitations

The coke oven battery coke oven gas supply line, natural gas jets (CPNGI001, CPNGI002 and CPNGO003) are subject to the provisions of the Significant Source Modification 089-12880-00121, issued July 26, 2001. The natural gas usage shall not exceed 178.7 million cubic feet (MMCF) injected through the natural gas jets per 12-consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit makes 326 IAC 2-2 PSD and 326 IAC 2-3 Emissions Offsets for the modification not applicable.

#### 326 IAC 6-1-10.1(g) (1) and 326 IAC 3-5-1(b) Continuous Opacity Monitors

The coke battery underfire stacks are subject to the provisions of 326 IAC 6-1-10.1(g) (1) and 326 IAC 3-5-1(b). Continuous opacity monitors are to be installed, operated and maintained on the Coke Battery underfiring stacks.

### **Coke By-Product Recovery Plant**

#### 326 IAC 6-1-2(a) Particulate Limitations

The Coke Oven Gas High Pressure Control System stack CG6077 is subject to the provisions of 326 IAC 6-1-2 (a), because the source wide particulate emissions are greater than 100 tons per year. The PM<sub>10</sub> emissions from the Coke Oven Gas High Pressure Control System Stack CG6077 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot.

### **Coke Oven Gas (COG) Desulfurization Facility**

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Requirements

The COG Desulfurization Facility Tail Gas Incinerator is subject to the provisions of 326 IAC 6-1-10.1(d)(36).

Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the Coke Plant Desulfurization Facility Tail Gas Incinerator shall not exceed 0.13 pound per hour.

#### Coke Oven Gas (COG) Desulfurization Facility Downtime

Pursuant to the Agreed Order signed March 22, 1996, by US Steel and IDEM and amended May 1, 2001, the Coke Oven Gas Desulfurization Plant's down time shall not exceed nine hundred and fifty (950) hours per year.

### **Number 2 Coke Plant Boiler House**

#### 326 IAC 6-1-10.1 Lake County PM<sub>10</sub> Emission Requirements

The Number 2 Coke Plant Boiler House Boilers No.1, CSS10155; No. 2 , CSS20156;Boiler No. 3, CSS60157; Boiler No. 4 , CSS40158; Boiler No. 5 , CSS50159; Boiler No.6 , CSS60160; Boiler No. 7, CSS70161 and Boiler No. 8, CSS80162 are subject to the provisions of 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from these facilities shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Boilers Nos. 1 and 2 stacks CS6060 and CS6061 shall not exceed 0.003 pounds per MMBtu heat input and a total of 0.75 pound per hour.
- (b) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Boiler No. 3 stack S6062 shall not exceed 0.012 pound per MMBtu of heat input and 1.8 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Boilers No.4 and No.5 stack CS6063 shall not exceed 0.012 pound per MMBtu of heat input and 3.9 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Boiler No.6 stack CS6064 shall not exceed 0.012 pound per MMBtu of heat input and 2.0 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Boiler No. 7 Stack CS6065 shall not exceed 0.012 pound per MMBtu of heat input and 1.9 pounds per hour.



- (f) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Boiler No. 8 stack CS6066 shall not exceed 0.012 pound per MMBtu of heat input and 2.9 pounds per hour.
- (g) The PM<sub>10</sub> emissions from the No. 2 Coke Plant Boiler House Lime Storage Silo baghouse LRS-1 shall not exceed 0.03 grains per dry standard cubic foot and 0.28 pound per hour.

#### 326 IAC 7-4-1.1(c)(22)(D) Sulfur Dioxide (SO<sub>2</sub>) Limitations

Boiler No. 1 (CSS10155), Boiler No. 2 (CSS20156), Boiler No. 3 Stack (CS6062), Boiler No. 4 Stack (CS6063), Boiler No. 5 Stack (CS6063), Boiler No. 6 Stack (CS6064), Boiler No. 7 Stack (CS6065) and Boiler No. 8 Stack (CS6066) are subject to the provisions of 326 IAC 7-4-1.1(c)(22). The SO<sub>2</sub> emissions from the Boilers shall comply with the following:

- (a) Boiler Nos. 1 and 2, CSS10155, and CSS20156 shall burn natural gas only.
- (b) The SO<sub>2</sub> emissions from each stack CS6062, CS6063 and CS6064 serving Boiler Nos. 3, 4, 5 and 6 shall not exceed 1.20 pounds of SO<sub>2</sub> per MMBtu of heat input.
- (c) The SO<sub>2</sub> emissions from each stack CS6065 and CS6066 serving Boiler Nos. 7 and 8 shall not exceed 1.07 pounds of SO<sub>2</sub> per MMBtu of heat input.
- (d) Only four (4) of No. 2 Coke Plant Boiler House Boilers can use coal or coke oven gas at any given time. If more than four (4) boilers are in operation, all but four (4) shall use natural gas.
- (e) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the State Implementation Plan revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

#### 326 IAC 2-1.1-5 Nonattainment NSR Minor Limits

Pursuant to Significant Source Modification 089-19678-00121, issued October 29, 2004 and in order to make the requirements of 326 IAC 2-1.1-5 Nonattainment NSR not applicable, the Permittee shall comply with the following:

- (a) The NO<sub>x</sub> emissions from each boiler No. 1 through 8 shall not exceed 280 pounds per million cubic feet (MMCF) of natural gas. (This is the NO<sub>x</sub> emission factor in AP-42, Table 1.4-1 for uncontrolled boilers.)
- (b) The NO<sub>x</sub> emissions from the temporary rental boiler shall not exceed 36.0 pounds per million cubic feet (MMCF) for natural gas,
- (c) The NO<sub>x</sub> emissions from each of the boilers No. 9 and No. 10 shall not exceed 129 pounds per million cubic feet (MMCF) of natural gas.
- (d) The total NO<sub>x</sub> emissions from boilers No. 1 through No. 10 and the temporary rental boiler at the coke plant boiler house (CPBH) shall be limited to less than 64.6 tons per twelve (12) consecutive month period with compliance determined at the end of each month. The monthly NO<sub>x</sub> emissions shall be calculated using the following equation:

$$\text{NO}_x \text{ Emissions (tons/month)} = (280 X + 36 Y + 129 Z) / 2,000$$

Where:

X = total monthly natural gas usage in boilers No. 1 through No. 8 (MMCF/month)

Y = monthly natural gas usage in the temporary rental boiler (MMCF/month)

Z = total monthly natural gas usage in boilers No. 9 and No. 10 (MMCF/month)

Therefore, the net NO<sub>x</sub> emission increase from this modification is limited to less than 40 tons/yr and the requirements of 326 IAC 2-1.1-5 (Nonattainment NSR) are not applicable.

#### 326 IAC 2-2 PSD Minor Limits 326 IAC 2-2

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Pursuant to Significant Source Modification 089-19678-00121, issued October 29, 2004 and in order to make the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall limit the total natural gas usage from boilers No. 1 through No. 10 and the temporary rental boiler to less than 2,550 MMCF per twelve (12) consecutive month period with compliance determined at the end of each month.

This is equivalent to 9.69 tons/yr of PM<sub>10</sub> emissions and 107 tons/yr of CO emissions from boilers No. 1 through No. 10 and the temporary rental boiler. The net emission increases from this modification are limited to less than 15 tons/yr for PM<sub>10</sub> and less than 100 tons/yr for CO. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

#### **Sinter Plant**

#### 326 IAC 2-2 and 326 IAC 2-3 Prevention of Significant Deterioration (PSD) and Emissions Offset Limitations

The sinter strand natural gas reheat burners (ISB001, ISB002 and ISB003) are subject to the provisions of the significant source modification 089-12880-00121, issued July 26, 2001. The sinter strand natural gas reheat burners shall comply with the following:

- (a) The usage of natural gas shall be less than 95.5 million cubic feet (MMCF) or usage of coke oven gas shall be less than 1, 637.4 MMCF per 12- consecutive month period, with compliance demonstrated at the end of each month. Compliance with this limit makes 326 IAC 2-2 PSD and 326 IAC 2-3 Emission Offset not applicable for the modification.
- (b) A summary of the natural gas and coke oven gas usage in the Sinter Strand Windbox recirculating burners per 12-consecutive month period with compliance demonstrated at the end of each month shall be submitted quarterly.

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Requirements

The No. 3 Sinter Plant individual facilities are subject to the provisions of 326 IAC 6-10.1(d)(36) and the PM<sub>10</sub> emissions requirements for each facility shall comply with the following:

- (a) The Number 3 Sinter Plant Strand Wind box Gas Cleaning System stacks (IS6198 and IS 6199) PM<sub>10</sub> emissions shall not exceed 0.0200 grains of per dry standard cubic foot and a total of 200.0 pounds per hour.
- (b) The Cold Screen Station Baghouse Stack (IS6207) PM<sub>10</sub>emissions shall not exceed 0.0100 grains per dry standard cubic foot and 10.89 pounds per hour.

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- (c) The S1/S2 Conveyor System Baghouse Stack (IS6206) PM<sub>10</sub> emissions shall not exceed 0.0100 grains per dry standard cubic foot and 1.29 pounds per hour.
- (d) The three (3) Sinter Coolers Stacks (IS6203, IS6204 and IS6205) PM<sub>10</sub> emissions shall not exceed 0.030 grains per dry standard cubic foot and a combined total of 272.2 pounds per hour.
- (e) The Discharge Ends Area Baghouse Stacks (IS6200, IS6201 and IS6202) emissions shall not exceed 0.0100 grain per dry standard cubic foot and a combined total of 20.57pounds per hour.
- (f) The Blended Material Storage Bins Building Baghouse Stack (IS6197) PM<sub>10</sub> emissions shall not exceed 0.010 grain per dry standard cubic foot and 0.43 pound per hour.

#### 326 IAC 7-4-1.1(c)(22)(I) Sulfur Dioxide (SO<sub>2</sub>) Limitations

- (a) The No. 3 Sinter Plant Strand Windbox Gas Cleaning System stacks IS6198 and IS6199 are subject to the provisions of the Agreed Order signed March 22, 1996 by US Steel and IDEM. In accordance with the agreed order, the SO<sub>2</sub> emissions from each stack shall not exceed 100.0 pounds per hour when the coke oven gas desulfurization plant is in operation.
- (b) Pursuant to the Agreed Order signed March 22, 1996, amended May 1, 2001, SO<sub>2</sub> emissions from each Sinter Plant Strand Windbox gas cleaning systems stack IS6198 and IS6199 shall not exceed 130.0 pounds of SO<sub>2</sub> per hour when the coke oven gas desulfurization plant experiences downtime. Such a limit shall only be applicable only during the coke oven gas desulfurization plant's down time. The coke oven gas desulfurization plant's down time shall not exceed nine hundred and fifty (950) hours per year.
- (c) The three (3) Sinter Strands Windbox units, ISS10379, ISS20380 and ISS30381 are subject to the provisions in 326 IAC 7-4-1.1(c)(22)(I), the SO<sub>2</sub> emissions shall not exceed 1.0 pounds per ton of sinter produced.
- (d) The sinter lines are subject to the provisions of 326 IAC 7-4-1.1(c)(22)(I), in that only two (2) of three (3) sinter lines may operate at any one time.
- (e) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the State Implementation Plan revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

#### 326 IAC 8-13-3 Volatile Organic Compounds (VOC)

The No.3 sinter strand windbox is subject to the provisions of 326 IAC 8-13-3(b) and (c), because the facility is located in Lake County and the source is an integrated iron and steel mill. The exhaust gas VOC emissions limits are as follows:

- (a) During the period May 1 through September 30, the total VOC emissions (the seasonal cap) shall not exceed 256,948 pounds of VOC emissions. This is based on the following

equation:

VOC (pounds) = 0.25 lb of VOC per ton of sinter produced x average daily sinter production rate of 6717.59 tons per day x 153 days

- (b) 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 2,096 pounds of VOC emissions. This is based on the following equation:

VOC (pounds per day) = 0.25 lb of VOC per ton of sinter produced x maximum actual daily sinter production rate 8384 tons per day

- (c) 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 1,679 pounds of VOC emissions. This is based on the following equation:

VOC (pounds per day) = 0.25 lb of VOC per ton of sinter produced x maximum actual daily sinter production rate of 6716 tons per day

A high ozone level day shall be predicted by the Permittee in accordance with a high ozone day action plan developed by the source and submitted to the IDEM - OAQ as part of the report required by 326 IAC 8-13-4(b).

- (d) The maximum actual daily sinter production (tons per day) is equal to the maximum actual sinter produced on an operating day during the period from 1990 to 1997.
- (e) The average daily sinter production equals either of the following:
- (1) The annual average sinter production in tons divided by the annual average number of operating days in the period 1990 through 1994.
  - (2) In the event sinter production in 1990 to 1994 is not representative of the current sinter production due factors, such as, but not limited to, routine repair, maintenance, or replacement, a source may elect to use the average actual sinter production in tons per day during a calendar year up to the year 1997, which represents current sinter production. The averaging period must include and not be less than the ozone season (May 1 through September 30).
- (f) 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.
- (g) 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 limits.

- (2) Control the sinter burden blend of materials placed on the sinter strand to produce sinter) oil and grease content by regulating the amount of mill scale in the sinter burden. Sinter burden will be blended in the blending piles to a specified percent of mill scale range.
- (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) 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.
- (5) 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.

## **Blast Furnaces**

### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Requirements

Blast furnaces Nos.4, 6, 8 and 13 are subject to the provisions of 326 IAC 6-1-10.1(d)(36). The PM<sub>10</sub> emissions from these facilities shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Blast Furnace No. 4 stoves stack IA6160 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Blast Furnace No. 6 stoves stack IB6168 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Blast Furnace No. 8 stoves stack IC6175 shall not exceed 0.033 pound per MMBtu of heat input and a total of 11.70 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Blast Furnace No. 13 stoves stack ID6184 shall not exceed 0.029 pound per MMBtu of heat input and a total of 20.40 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Number 13 Blast Furnace Casthouse Baghouse stack ID6187 shall not exceed 0.0090 pound per MMBtu of heat input and 38.57 pounds per hour.

### 326 IAC 6-1-2(a) Particulate Emissions Limitations

The particulate emissions from the roof monitors are subject to the provisions of 326 IAC 6-1-2(a), because the source wide potential to emit particulate is greater than 100 tons per year. The

particulate emissions from the roof monitors, IA6010, IB6011, IC6012 and ID6013 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

#### 326 IAC 7-4-1.1(c)(22) Sulfur Dioxide (SO<sub>2</sub>)

Pursuant to 326 IAC 7-4-1.1(c)(22)(J), the SO<sub>2</sub> emissions from the No. 4 Blast Furnace Stoves IAST0360, No. 6 Blast Furnace Stoves IBST0361, No. 8 Blast Furnace Stoves ICST0362 and No. 13 Blast Furnace Stoves IDST0359 shall comply with the following:

- (a) The SO<sub>2</sub> emissions from each Blast Furnace Nos. 4, 6, 8 and 13 stoves sack IA6160, IB6168, IC6175 and ID6184 shall not exceed 0.002 pound per MMBtu of heat input.
- (b) Only two (2) out of three (3) stoves at each of the Blast Furnace Nos. 4, 6 and 8 shall fire fuel simultaneously.
- (c) Only three (3) out of four (4) stoves at Blast Furnace No. 13 shall fire fuel simultaneously.
- (d) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the State Implementation Plan revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

#### 326 IAC 9-1-2(2) Carbon Monoxide (CO) Limitations

- (a) The blast furnace No. 13 IDBF0369 is subject to the provisions of 326 IAC 9-1-2(2), because Blast Furnace No.13 commenced operation after March 21, 1972. Pursuant to 326 IAC 9-1-2(2), no carbon monoxide shall be discharged from the No. 13 Blast Furnace IDBF0369, waste gas stream, unless the gas stream is 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 ground one hour Indiana ambient air quality value for carbon monoxide.
- (b) The provisions of 326 IAC 9-1-2(2), are not included in this permit for the blast furnaces Nos.4, 6 and 8. The Blast Furnaces Nos.4, 6 and 8 commenced operation before March 21, 1972.

### **Number 1 BOP Shop**

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Requirements

The Basic Oxygen Process Furnace Operations individual facilities are subject to the provisions of 326 IAC 6-1-10.1(d)(36). The individual facilities shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the No. 1 BOP Shop Hot Metal Desulfurization Baghouse Stack SS6100 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 15.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the No. 1 BOP Shop Gas Cleaning System stacks SS6102 and SS6103 shall not exceed 0.011 grains per dry standard cubic foot of exhaust air and a

total of 46.0 pounds per hour.

- (c) The PM<sub>10</sub> emissions from the No. 1 BOP CASBELL/OB Lancing Baghouse stack SS6104 shall not exceed 0.0070 grains per dry standard cubic foot of exhaust air and 5.10 pounds per hour.

### 326 IAC 6-1-2(a) Particulate Emissions Limitations

The particulate emissions from the roof monitors are subject to the provisions of 326 IAC 6-1-2(a) because the source wide potential to emit particulate is greater than 100 tons per year. The particulate emissions from the roof monitors SS6636, SS6637 and SS6638 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

### 326 IAC 6-1-10.1(e) Opacity Limitations

The Number 1 Basic Oxygen Process Shop individual operations are subject to the provisions of 326 IAC 6-1-10.1(e). The individual facilities shall comply with the following:

- (a) Opacity emissions from the Hot Metal Desulfurization baghouse Stack SS6100 shall not exceed five percent (5%) for any, three (3) minute average.
- (b) Opacity emissions from the BOP Furnace Operations Gas Cleaning System Stacks SS6102 and SS6103 shall not exceed twenty percent (20%) for any, six (6) minute average.
- (c) Opacity emissions from the Number 1 BOP Shop Roof Monitor SS6636 Operations shall achieve and maintain an opacity emission limitation of twenty percent (20%) for any three (3) minute average.

### 326 IAC 7-4-1.1 Hot Metal Processing Facility Limitations

Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004 the Permittee sent in an application on April 29, 2004 to include the Number 1 BOP Hot metal desulfurization SO<sub>2</sub> limitations shall comply with the following:

- (a) The SO<sub>2</sub> emissions from the Hot Metal processing facilities No. 1 and No. 2 as measured during all hot metal processing activities shall not exceed 0.05 pound per ton of hot metal. Hot metal processing will include hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming.
- (b) The SO<sub>2</sub> emissions from the Hot Metal processing facilities No. 1 and No. 2 as measured during hot metal desulfurization reagent injection only shall not exceed 0.01 pound per ton of hot metal.

### 326 IAC 9-1-2(2) Carbon Monoxide (CO) Limitations

The No. 1 basic oxygen furnace operation is not subject to the provisions of 326 IAC 9-1-2(c) because the BOF commenced operation before March 21, 1972.

## **Number 2 Q-BOP Shop**

### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emissions Requirements

The PM<sub>10</sub> emissions from the Number 2 Q-BOP Shop Operations individual facilities are subject to

the provisions of 326 IAC 6-1-10.1(d)(36) and each facility shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Number 2 Q-BOP Hot Metal Desulfurization Baghouse stack NS6144 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 13.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the Number 2 Q-BOP Secondary Emissions Baghouse stack NS6123 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 27.0 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the Number 2 Q-BOP Gas Cleaning System stacks NS6124 and NS6125 shall not exceed 0.0153 grains per dry standard cubic foot of exhaust air and a total of 44.40 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the Number 2 Q-BOP North Flux Handling Baghouse stack NS6626 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 1.8 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the Number 2 Q-BOP South Flux Handling Baghouse stack NS6625 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 1.8 pounds per hour.
- (f) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Number 1 Hot Fume Exhaust Baghouse stack NS6146 shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 5.1 pounds per hour.
- (g) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Number 2 Hot Fume Exhaust Baghouse stack NS6147 shall not exceed 0.007 grains per dry standard cubic foot of outlet exhaust air and 5.1 pounds per hour.
- (h) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Number 3 Hot Fume Exhaust and Material Handling Baghouse stack NS6148 shall not exceed 0.0070 grains per dry standard cubic foot of exhaust air and 2.7 pounds per hour.
- (i) The PM<sub>10</sub> emissions from the Number 2 Q-BOP LMF Numbers 1 and 2 Material Handling Baghouse Stack NS6055, shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 3.83 pounds per hour.
- (j) The PM<sub>10</sub> emissions from the Number 2 Q-BOP RH-degasser Slag Conditioning Baghouse Stack, shall not exceed 0.007 grains per dry standard cubic foot of exhaust air and 5.49 pounds per hour.

#### 326 IAC 6-1-2(a) Particulate Emissions Limitations

The particulate emissions from the Number 2 Q-BOP roof monitors are subject to the provisions of 326 IAC 6-1-2(a), because the source wide PTE of particulate is greater than 100 tons per year.

The particulate emissions from the roof monitors NS6631, NS6632, NS6633 and NS6634 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

#### 326 IAC 6-1-10.1(e) Opacity Limitations

The Number 2 Q-BOP Shop operations individual facilities are subject to the opacity limits in 326 IAC 6-1-10.1(e), because these facilities are located in Lake County. The opacity limits for these facilities are as follows:



- (a) Opacity from the Number 2 Q-BOP Hot Metal Desulfurization Stations Baghouse stack NS6144 shall not exceed five percent (5%) opacity, three (3) minute average.
- (b) Opacity from the Number 2 Q-BOP Secondary Baghouse stack NS6123 shall not exceed five percent (5%) opacity, three (3) minute average.
- (c) Opacity from the Number 2 Q-BOP Gas Cleaning system Stacks NS6124 and NS6125 shall not exceed twenty percent (20%) opacity, six (6) minute average.
- (d) Opacity from the Number 2 Q-BOP LMF No.1 Hot Fume Exhaust Baghouse Stack NSS6146 shall not exceed five percent (5%) opacity, three (3) minute average.
- (e) Opacity from the Number 2 Q-BOP LMF No.2 Hot Fume Exhaust Baghouse Stack NS6147 shall not exceed five percent (5%) opacity, three (3) minute average.
- (f) Opacity from the Number 2 Q-BOP LMF Nos. 1 and 2 Material Handling Baghouse Stack NS3052 shall not exceed five percent (5%) opacity, three (3) minute average.
- (g) Opacity from the Number 2 Q-BOP Roof Monitor NS 6632 shall not exceed twenty percent (20%) opacity, three (3) minute average.

#### 326 IAC 7-4-1.1 Hot Metal Processing Facility Limitations

Pursuant to the U.S. EPA Administrative Consent Order, issued January 2, 2004, the Permittee sent in an application on April 29, 2004 to include the Number 2 Q-BOP Hot metal desulfurization SO<sub>2</sub> limitations shall comply with the following:

- (a) The SO<sub>2</sub> emissions from the Hot Metal processing facilities two hot metal desulfurization stations and mixers as measured during all hot metal processing activities shall not exceed 0.05 pound per ton of hot metal. Hot metal processing will include hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming.
- (b) The SO<sub>2</sub> emissions from the Hot Metal processing facilities: two hot metal desulfurization stations and mixers as measured during hot metal desulfurization reagent injection only shall not exceed 0.01 pound per ton of hot metal.

#### 326 IAC 9-1-2(2) Carbon Monoxide (CO) Limitations

The basic oxygen furnace operations (BOF) are subject to the provisions of 326 IAC 9-1-2(2), because the BOF processes commenced operation after March 21, 1972. Pursuant to 326 IAC 9-1-2(2), emissions of carbon monoxide shall be limited as follows for ferrous metal smelters. The Permittee shall not operate Number 2 Q-BOP basic oxygen steel furnace, having a capacity of ten (10) tons per hour or more process weight, unless the waste gas stream is burned in a direct-flame afterburner.

### Hot Rolling Mill

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emissions Requirements

The 84" Hot Strip Mill Continuous Reheat Furnaces Nos. 1, 2, 3 and 4 and Waste Heat Boilers Nos. 1 and 2 are subject to the provisions of 326 IAC 6-1-10.1(d). These individual facility PM<sub>10</sub> emissions shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the 84" Hot Strip Mill Reheat Furnaces Nos. 1, 2, 3 and 4, RM6500, RM6501, RM6502 and RM 6503 shall not exceed 0.017pounds per MMBtu of heat input and a total of 40.80 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the 84" Hot Strip Mill Waste Heat Boiler No. 1 Stack HB6504 shall not exceed 0.043 pound per MMBtu of heat input and 10.0 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the 84" Hot Strip Mill Waste Heat Boiler No. 2 Stack HB6505 shall not exceed 0.043 pound per MMBtu of heat input and 10.0 pounds per hour.

#### 326 IAC 7-4-1.1(c)(22)(G) Sulfur Dioxide (SO<sub>2</sub>) Limitations

- (a) The 84" Hot Strip Mill Continuous Reheat Furnace Nos.1, 2, 3 and 4, RMF10500, RMF20501, RMF30502 RMF40503 and Waste Heat Boilers Nos. 1 and 2, RB1B0508 and RB2B0509 are subject to the provisions of 326 IAC 7-4-1.1(c)(22)(G)(i -iv),. These facilities have SO<sub>2</sub> requirements as follows:
  - (1) Actual heat input derived from coke oven gas and fuel oil shall not exceed a total of four hundred seventy-seven (477) million Btu per hour for Waste Heat Boiler 1, RB1B0508 and Furnaces 1 and 2, RMF10500 and RMF20501 combined.
  - (2) Actual heat input derived from coke oven gas and fuel oil shall not exceed a total of five hundred seven (507) million Btu per hour for Waste Heat Boiler 2, RB2B0509 and Furnaces 3 and 4, RMF30502 and RMF40503 combined.
  - (3) The remainder of the actual heat input shall be obtained by burning natural gas.
  - (4) Total actual heat input shall not exceed four hundred forty (440) million Btu per hour for each furnace, one hundred seventy (170) million Btu per hour for Waste Heat Boiler 1, RB1B0508, and two hundred (200) million Btu per hour for Waste Heat Boiler 2, RB2B0509.
  - (5) The Waste Heat Boiler 1, RB1B0508 and Continuous Reheat Furnaces1and 2, RMF10500, RMF20501 shall not exceed 511.8 pounds of SO<sub>2</sub> per hour.
  - (6) The Waste Heat Boiler 2, RB2B0509 and Continuous Reheat Furnaces 3 and 4 RMF30502 and RMF40503 shall not exceed a total of 543.9 pounds of SO<sub>2</sub> per hour.
  - (7) Fuel supplied to the continuous reheat furnaces (coke oven gas, fuel oil, and natural gas) shall not result in a sulfur dioxide emission rate exceeding four hundred forty-seven thousandths (0.447) pounds per million Btu actual heat input.
- (b) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the SIP revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

### North and South Sheet Mills

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Requirements

The Electro-galvanizing Line (EGL) Boiler House is subject to the provisions of 326 IAC 6-1-

Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the EGL Boiler House shall not exceed 0.0033 pounds per MMBtu of heat input and a total of 0.13 pound per hour.

#### 326 IAC 6-1-2(a) Particulate Emissions Limitations

The particulate emissions from the North Sheet Mill 5-Stand Cold Reduction Mill and the South Sheet Mill: No. 6 East Galvanize Line are subject to the provisions of 326 IAC 6-1-2(a), because the source wide potential to emit (PTE) of particulate is greater than 100 tons per year. The particulate emissions from the North Sheet Mill 5-Stand Cold Reduction Mill Stack H56527 and the South Sheet Mill: No. 6 East Galvanize Line Stack H66516 shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

#### 326 IAC 2-3 Emissions Offset (NO<sub>x</sub>) Limitations

The three (3) hydrogen atmosphere batch annealing furnaces are subject to the provisions of construction permit CP089-8606-00121, issued October 20, 1997. The natural gas usage in these facilities is limited to 37.2 million cubic feet (MMCF) per 12 consecutive month period with compliance demonstrated at the end of each month. This production limitation is equivalent to NO<sub>x</sub> emissions of 2.64 tons per 12 consecutive month period with compliance demonstrated at the end of each month. Therefore, the Emission Offset rule, 326 IAC 2-3, does not apply.

### **Tin Mill Operations**

#### 326 IAC 6-1-2(a) Particulate Emissions Limitations

The following facilities are subject to the provisions of 326 IAC 6-1-2(a), because the source wide potential to emit particulate is greater than 100 tons per year. The particulate emissions shall not exceed three-hundredths (0.03) grain per dry standard cubic feet (gr/dscf) from the following units:

- (a) 6-Stand Cold Reduction Mill Stack TR6575,
- (b) One (1) Double Reduction Mill Stack TD6595, and
- (c) No. 1 Tin Free Steel Line Chemical Treatment Rinse Stack TF6597.

#### 326 IAC 7-4-1.1 Sulfur Dioxide (SO<sub>2</sub>) Limitations

The No. 1 Annealing Furnace (T1AF0794) and No. 2 Annealing Furnace (T2AF0799), the 4-Stack "Box" Annealing Furnaces (TXAF0765 through TXAF0769) and the Tin Anode Caster are subject to 326 IAC 7-4-1.1(a). These facilities shall only burn natural gas.

### **No. 4 Boiler House Boilers**

#### 326 IAC 6-1-10.1(d)(36) Lake County PM<sub>10</sub> Emission Requirements

The No. 4 Boiler House Boilers Nos. 1, 2 and 3 Stacks (O46268, O46269 and O46270) are subject to the provisions of 326 IAC 6-1-10.1(d)(36).

Pursuant to 326 IAC 6-1-10.1(d)(36), the PM<sub>10</sub> emissions from the Boilers Nos. 1, 2 and 3 Stacks O46268, O46269 and O46270 shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the Number 4 Boiler House Boilers, when one or two boilers are

operating shall not exceed 0.054 pounds per MMBtu of heat input and a total of 54.1 pounds per hour.

- (b) The PM<sub>10</sub> emissions from the Number 4 Boiler House Boilers, when three boilers are operating shall not exceed 0.036 pounds per MMBtu of heat input and a total of 54.1 pounds per hour.

326 IAC 7-4-1.1(c)(22)(B) Sulfur Dioxide (SO<sub>2</sub>) Limitations

- (a) The No. 4 Boiler House Boilers Nos. 1, 2 and 3 Stacks (O46268, O46269 and O46270) are subject to the provisions of 326 IAC 7-4-1.1(c)(22)(B). The SO<sub>2</sub> emissions from each of the Boilers Nos. 1, 2 and 3 shall not exceed 0.219 pounds per MMBtu of heat input.
- (b) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the State Implementation Plan (SIP) revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

**Turboblower Boiler House (TBBH) Boilers**

326 IAC 6-1-10.1(d) (36) Lake County PM<sub>10</sub> Emission Requirements

The emissions from the TBBH Boilers Nos. 1, 2, 3, 4 A, 5 and 6 Stacks (OT6271, OT6272, OT6273, OT6274, S-1, OT6275 and TBBH-6) are subject to the provisions of 326 IAC 6-1-10.1(d)(36). The PM<sub>10</sub> emissions from these facilities shall comply with the following:

- (a) The PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3 and 5: OT6271, OT6272, OT6273 and OT6275, when four boilers are operating, shall not exceed 0.037 pound per MMBtu of heat input each and a total of 61.0 pounds per hour.
- (b) The PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3 and 5: OT6271, OT6272, OT6273 and OT6275, when three boilers are operating, shall not exceed 0.050 pound per MMBtu of heat input each and a total of 61.0 pounds per hour.
- (c) The PM<sub>10</sub> emissions from the TBBH Boilers Nos. 1, 2, 3 and 5: OT6271, OT6272, OT6273 and OT6275, when one or two boilers are operating, shall not exceed 0.074 pound per MMBtu of heat input each and a total of 61.0 pounds per hour.
- (d) The PM<sub>10</sub> emissions from the TBBH Boiler No.4A stack OT6274 shall not exceed 0.012 pound per MMBtu of heat input each and 2.9 pounds per hour.
- (e) The PM<sub>10</sub> emissions from the TBBH Boiler No. 6 Stack OT6276 shall not exceed 0.039 pound per MMBtu of heat input and 27.80 pounds per hour.

326 IAC 7-4-1.1(c)(22)(A) Sulfur Dioxide (SO<sub>2</sub>) Limitations

- (a) The TBBH Boilers Nos. 1, 2, 3, 4A, 5 and 6 stacks OT6271, OT6272, OT6273, S-1, OT6275 and TBBH-6 are subject to the provisions of 326 IAC 7-4-1.1(c)(22)(A). The SO<sub>2</sub> emissions from each facility shall not exceed 0.269 pounds per MMBtu of heat input.
- (b) Upon completion of rule changes to 326 IAC 7-4-1.1(c)(22), IDEM will submit the changes

to the U.S. EPA as a State Implementation Plan (SIP) revision. Once the State Implementation Plan (SIP) revision is approved by the U.S. EPA, the Permittee may request a modification of the Part 70 permit to incorporate the revised SO<sub>2</sub> limits and conditions within thirty (30) days.

### 326 IAC 2-2 and 326 IAC 2-3 PSD and Emission Offset Nitrogen Oxides (NO<sub>x</sub> Limitations)

TBBH Boiler No. 6 Stack (TBBH-6) is subject to the provisions of Minor Source Modification 089-10160-00121 issued, January 13, 2000, 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) to limit the potential to emit NO<sub>x</sub> emissions below forty (40) tons per year. The NO<sub>x</sub> emissions from this facility are limited as follows:

- (a) Boiler No. 6 NO<sub>x</sub> emissions shall not exceed 0.14 pounds of NO<sub>x</sub> per MMBtu of heat input.
- (b) When combusting natural gas the usage shall not exceed 1,059.7 million cubic feet (MMCF) per twelve (12) consecutive month period with compliance demonstrated at the end of each month. Compliance with this limit will also preclude the Permittee from the requirement to install a continuous emissions monitor (CEM) for NO<sub>x</sub> as outlined in Condition D.15.12.
- (c) Blast furnace gas and natural gas shall be the only fuels combusted in TBBH Boiler No. 6, unless the Permittee receives prior approval from IDEM, OAQ to combust coke oven gas or fuel oil.

These limitations will ensure that the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) do not apply.

### **Fugitive Dust Sources**

#### 326 IAC 6-1-11.1 Lake County Fugitive Particulate Matter Control Requirements

The facilities and operations are subject to the provisions of 326 IAC 6-1-11.1, because they have the potential to emit five (5) tons per year of fugitive particulate matter in the atmosphere in Lake County. Compliance with the opacity limits specified in Section C-Fugitive Dust Emissions is to be achieved by controlling fugitive particulate matter emissions according to the revised Fugitive Dust Control Plan (FDCP). If it is determined that the control procedures specified in the FDCP do not demonstrate compliance with the fugitive emission limitations, IDEM, OAQ may request that the FDCP be revised and submitted for approval. The Permittee submitted a revised Fugitive Dust Control Plan on January 28, 2000.

### **Insignificant Activities - Specifically regulated**

#### 326 IAC 6-1-2(a) Particulate Emissions Limitation

The particulate emissions from the brazing equipment, cutting torches, soldering equipment, welding equipment, structural steel and bridge fabrication, covered conveyors, dust collector vents associated with coal bunkers and coal scale, grinding and machining operations and ash transport systems vents are subject to the provisions of 326 IAC 6-1-2(a), because the source wide PTE of particulate is greater than 100 tons per year. The particulate emissions from these facilities shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

## 326 IAC 8-3-2 Volatile Organic Compounds (VOC)

A cold cleaning operation is subject to the provisions of 326 IAC 8-3-2, because it has existed as of January 1, 1980 and is located in Lake County which have potential emissions of one hundred (100) tons per year or greater of VOC. The Cold Cleaning Operation shall meet the following requirements:

- (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.

## 326 IAC 8-3-5 Volatile Organic Compounds (VOC)

- (a) A cold cleaner degreaser operation without remote solvent reservoirs is subject to the provisions of 326 IAC 8-3-5(a), because it has existed since January 1, 1990 and is located in Lake County. The Cold Cleaner Degreaser Operation and Control is to meet the following requirements:
  - (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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°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°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°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.
- (b) The Cold Cleaner Degreaser Operation is subject to 326 IAC 8-3-5(b), because construction commenced after July 1, 1990 and it is located in Lake County. The Cold Cleaner Degreaser Operation and Control is to meet the following operating requirements:
  - (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

#### 326 IAC 8-9-1 Volatile Organic Liquid Storage Vessels

This source is subject to the provisions of 326 IAC 8-9-1(a) and (b) (Volatile Organic Liquid Storage Vessels), on and after October 1, 1995, because the source has stationary vessels used to store volatile organic liquids (VOL) that are located in Lake County with a capacity of less than thirty nine thousand (39,000) gallons. The source is subject to the reporting and record keeping requirements of this rule. The VOL storage vessels are exempted from all other provisions of this rule.

US Steel – Gary Works  
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Gary, Indiana  
00121  
Permit reviewer: Gail McGarrity

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**Testing Requirements**

Facility	Pollutant	Frequency
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Facility	Pollutant	Frequency
<p>No. 2 Coke Battery Precarbonization Lines A, B, and C, ESP stacks CH6034, CH6035 and CH6037</p> <p>and</p> <p>No. 3 Coke Battery Precarbonization Lines A, B and C , ESP stacks CH6028, CH6029 and CH6031</p>	<p>PM<sub>10</sub>,</p>	<p>Pursuant to the protocol issued ) by IDEM May 16, 1997, incorporated as Exhibit C of the Agreed Order issued March 22, 1996, this performance test schedule is the alternative monitoring requirement for the Precarbonization Systems at Gary Coke Division, in lieu of installing and operating Continuous Opacity Monitors (COMs) on the six (6) Precarbon ESP stacks CH6034, CH6035, CH6037, CH6028, CH6029 and CH6031, as required by 326 IAC 6-1-10.1(g)(3).</p> <p>Pursuant to the protocol issued by IDEM May 16, 1997, incorporated as Exhibit C of the Agreed Order issued March 22, 1996 the Permittee shall conduct the performance test for Particulate Matter, to demonstrate compliance by measuring combined filterable and condensable emissions utilizing Method 5 and Method 202 of 40 CFR 60 Appendix A or other methods as approved by the Commissioner.</p> <p>Pursuant to Revised Source Testing Protocol for Nos. 2 and 3 Precarbonization Lines for Coke Batteries No. 2 and 3, respectively, in a letter dated June 29, 1998 the Permittee shall conduct the operation of a single Precarbonization Line through two ESPs. In order for the testing to represent the worst case emissions, the Permittee shall operate a single precarbon line through its associated ESP line with the tie lines between ESPs closed during the test. The results of this testing will be considered in compliance if the average PM<sub>10</sub> (filterable plus condensable) are less than 31.25 pounds per hour.</p> <p>This test protocol modification reflects the change in operations of ESPs immediately after the precarbonization line returns from the “stand by” mode which results in decreased ESP collection efficiency.</p> <p>Pursuant to a protocol dated May 16, 1997 incorporated by IDEM, as Exhibit C of the Agreed Order issued March 22, 1996, for Nos. 2 and 3 Precarbonization Lines for Coke Batteries No. 2 and 3, respectively The Permittee shall conduct performance test in accordance with (b) and (c) above for PM<sub>10</sub> emissions within a period of six (6) months of last compliant test.; This performance test shall be repeated within a period of six (6) months of the date of the last compliant test for the life of the precarbonization lines. All tests shall be performed in accordance with</p>

Facility	Pollutant	Frequency
		Section C – Performance Testing.

Facility	Pollutant	Frequency
No. 2 Coke Battery underfiring stack CP6040	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 3 Coke Battery underfiring stack CP6045	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 5 Coke Battery underfiring stack CP6049	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 7 Coke Battery underfiring stack CP6053	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Nos. 5 and 7 Coke Batteries Pushing Baghosue Stack CP6050	PM <sub>10</sub>	Once every 5 years
Coke Plant Boiler House Boiler No. 1 stack CS6060	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Coke Plant Boiler House Boiler No. 2 stack CS6061	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Coke Plant Boiler House Boiler No. 3 stack CS6062	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Coke Plant Boiler House Boilers No. 4 and 5 stack CS6063	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Coke Plant Boiler House Boiler No. 6 stack CS6064	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Coke Plant Boiler House Boiler No. 7 stack CS6065	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Coke Plant Boiler House Boiler No. 8 stack CS6066	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 3 Sinter Plant Sinter Strand Windbox Gas Cleaning Stacks IS6198 and IS6199	PM <sub>10</sub> ,	Once every 2 ½ years
	SO <sub>2</sub>	Once every 2 ½ years
No. 3 Sinter Plant Sinter Strand Discharge Ends Area Baghouses Stacks IS6200, IS6201 and IS6202	PM <sub>10</sub>	Once every 5 years
No. 3 Sinter Plant Sinter Cooler Stacks IS6203, IS6204 and IS6205	PM <sub>10</sub>	Once every 2 ½ years
Blast Furnace No. 4 Stoves stack IA6160	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Blast Furnace No. 6 Stoves stack IB6168	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
Blast Furnace No. 8 Stoves stack IC6175	PM <sub>10</sub>	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.

Facility	Pollutant	Frequency
Blast Furnace No. 13 Stoves stack ID6184	PM <sub>10</sub>  SO <sub>2</sub>	Once every 2 ½ years  SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 13 Blast Furnace Cast house Baghouse stack ID6187	PM <sub>10</sub>	Once every 2 ½ years
Number 1 BOP Hot Metal Desulfurization Baghouse stack SS6100	PM <sub>10</sub>	Once every 5 years
Number 1 BOP Gas Cleaning stacks SS6102 and SS6103	PM <sub>10</sub>	Once every 2 ½ years
No. 1 BOP each Hot Metal Processing Facility includes hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming as applicable – 0.05 pound SO <sub>2</sub> per ton of hot metal processed	SO <sub>2</sub>	Pursuant to the US EPA Administrative Consent Order issued January 2, 2003 SO <sub>2</sub> shall be performed once every 2 ½ years Results from this test can not be used to demonstrate compliance with the SO <sub>2</sub> emission limit as measured during the hot metal desulfurization reagent injection only compliance demonstration.
No. 1 BOP each Hot Metal Desulfurization facilities as measured during hot metal desulfurization reagent injection only 0.01 pound SO <sub>2</sub> per ton of hot metal processed	SO <sub>2</sub>	Pursuant to the US EPA Administrative Consent Order issued January 2, 2003 SO <sub>2</sub> shall be performed once every 2 ½ years Results from this test can not be used to demonstrate compliance with the SO <sub>2</sub> emission limit for the hot metal processing: hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming compliance demonstration.
Number 2 Q-BOP Gas Cleaning Systems stacks NS6124 and NS6125	PM <sub>10</sub>	Once every 2 ½ years
Number 2 Q-BOP Secondary Emissions Baghouse stack NS6123	PM <sub>10</sub>	Once every 2 ½ years
Number 2 Q-BOP Hot Metal Desulfurization Baghouse stack NS6144	PM <sub>10</sub>	Once every 5 years
No. 2 Q-BOP each Hot Metal Processing Facility includes hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming as applicable - 0.05 pound SO <sub>2</sub> per ton of hot metal processed	SO <sub>2</sub>	Pursuant to the US EPA Administrative Consent Order issued January 2, 2003 SO <sub>2</sub> shall be performed once every 2 ½ years. Results from this test can not be used to demonstrate compliance with the SO <sub>2</sub> emission limit as measured during the hot metal desulfurization reagent injection only compliance demonstration.
No. 2 Q-BOP each Hot Metal Desulfurization facilities as measured during hot metal desulfurization reagent injection only 0.01 pound SO <sub>2</sub> per ton of hot metal processed	SO <sub>2</sub>	Pursuant to the US EPA Administrative Consent Order issued January 2, 2003 SO <sub>2</sub> shall be performed once every 2 ½ years Results from this test can not be used to demonstrate compliance with the SO <sub>2</sub> emission limit for the hot metal processing: hot metal transfer, hot metal desulfurization reagent injection and hot metal skimming compliance demonstration.
84" Hot Strip Mill Continuous Reheat	PM <sub>10</sub>	Once every 5 years, with a different stack being

Facility	Pollutant	Frequency
Furnaces Nos. 1, 2, 3 and 4 stacks RM6500, RM6501, RM6502 and RM 6503.	SO <sub>2</sub>	tested in each 5 year cycle, since the units are all the same.  SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
84" Hot Strip Mill Waste Heat Boilers Nos. 1 and 2 stacks HB6504 and HB6505	PM <sub>10</sub>	Once every 5 years, with a different stack being tested in each 5 year cycle, since the units are all the same.
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
80-inch Continuous Pickling Line	HCl	Once every 2 ½ years A request for an alternative performance testing schedule was granted by IDEM, OAQ in a letter dated May 6, 2002.
84-inch Continuous Pickling Line	HCl	Once every 2 ½ years A request for an alternative performance testing schedule was granted by IDEM, OAQ in a letter dated May 6, 2002.
No. 4 Boiler House Boilers No. 1 stack O46268, No. 2 stack O46269 and No. 3 stack O46270, when all three boilers are operating	PM <sub>10</sub> ,	Once every 2 ½ years
No. 4 Boiler House Boiler No. 1 stack O46268	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 4 Boiler House Boiler No. 2 stack O46269	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
No. 4 Boiler House Boiler No. 3 stack O46270,	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
TBBH Boilers No. 1 stack OT6271, No. 2 stack OT6272, No. 3 stack OT6273, and No. 5 stack OT6275, when all four boilers are operating.	PM <sub>10</sub> ,	Once every 2 ½ years
TBBH Boiler No. 1 stack OT6271	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
TBBH Boiler No. 2 stack OT6272	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
TBBH Boiler No. 3 stack OT6273	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
TBBH Boiler No. 4A stack S-1	PM <sub>10</sub> ,	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
TBBH Boiler No. 5 stack OT6275	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.
TBBH Boiler No. 6 stack TBBH-6	PM <sub>10</sub> ,	Once every 2 ½ years
	SO <sub>2</sub>	SO <sub>2</sub> Fuel Sampling and Analysis and stack testing within 30 days of IDEM, OAQ request.

## Compliance Monitoring

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also 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 monitoring

<b>Coal Handling</b>			
Nos. 2 Coke Battery Precarbonization facilities Stacks CH6034, CH6035, and CH6037, (electrostatic precipitators)	Once per shift Visible emission notations	Once per shift number of T-R Sets in service; Primary and Secondary voltages and currents of the T-R sets	Once every two years T-R set inspections
Nos. 3 Coke Battery Precarbonization facilities Stacks CH6028, CH6029 and CH6031 (electrostatic precipitators)	Once per shift Visible emission notations	Once per shift number of T-R Sets in service; Primary and Secondary voltages and currents of the T-R sets	Once every two years T-R set inspections
<b>Coke Oven Batteries</b>			
Coke Oven Batteries: oven doors, topside port ids, off take systems and per charge	Daily Visible emissions using Method 303		
No. 2 and 3 Coke Oven Batteries Mobile scrubber cars 9121 and 9122	Once per shift Visible emission notations		Quarterly scrubber car inspections
No. 5 and 7 Coke Oven Batteries Pushing Stack CP 6050 (baghouse)	Once per shift Visible emission notations		Quarterly baghouse inspections
<b>Sinter Plant</b>			
Sinter Windbox Gas Cleaning System stacks IS6198 and IS6199; scrubbers	Once per shift Visible emission notations	Once per shift 3–8 inches of water pressure drop	once per shift 400 to 600 gallons per minute flow rate
Sinter Windbox Gas Cleaning System stacks IS6198 and IS6199; baghouse	Once per shift Visible emission notations	Once per shift 3-6 inches of water pressure drop	Quarterly baghouse inspections
Sinter Cooler stacks IS6203, IS6204 and IS6205,	Once per shift Visible emission notations		

Sinter Discharge Ends Area stacks IS6200, IS6201 and IS6202	Once per shift Visible emission notations	Once per shift 3-6 inches of water pressure drop	Quarterly baghouse inspections
<b>Blast Furnaces</b>			
No. 13 Blast Furnace Casthouse Stack ID6187 (baghouse)	Once per shift Visible emission notations	Once per shift 3 to 9 inches of water pressure drop	Quarterly baghouse inspections
Flares No.1, No. 2 and No. 4	Monitor presence of flame at the flare tip.		
<b>Number 1 BOP Shop</b>			
Hot Metal Desulfurization Station Stack SS6100 (baghouse)	Once per shift Visible emission notations	Once per shift 3 to 6 inches of water pressure drop	Quarterly baghouse inspections
No. 1 BOP Gas Cleaning System Stacks SS6102 and SS6103 (scrubbers)	Once per shift Visible emission notations	Once per shift 70 – 75 inches of water pressure drop	3000 to 4500 gallons per minute flow rate
Casbell/OB Lancing Stations Stack SS6104 (baghouse)	Once per shift Visible emission notations	Once per shift 3 to 6 inches of water pressure drop	Quarterly baghouse inspections
<b>Number 2 Q-BOP Shop</b>			
Hot Metal Desulfurization Stations and Mixers Stack NS6144 (baghouse)	Once per shift Visible emission notations	Once per shift 3 to 9 inches of water pressure drop	Quarterly baghouse inspections
Secondary Emissions Stack NS6123 (baghouse)	Once per shift Visible emission notations	Once per shift 3 to 9 inches of water pressure drop	Quarterly baghouse inspections
No. 2 Q-BOP Gas Cleaning System Stacks NS6124 and NS6125	Once per shift Visible emission notations	Once per shift 50 to 70 inches of water pressure drop	Once per shift 3000 to 4400 gallon per minute flow rate
No. 1 and 2 Ladle Metallurgical Facilities Stacks NS6146 and NS6147 (baghouses)	Once per shift Visible emission Notations	Once per shift 3 to 6 inches of water pressure drop	Quarterly baghouse inspections
No. 3 Ladle Metallurgical Facilities Stack NS6148 (baghouse)	Once per shift Visible emission notations	Once per shift 3 to 6 inches of water pressure drop	Quarterly baghouse inspections

**Conclusion**

The operation of this integrated steel mill shall be subject to the conditions of the attached proposed Part 70 Permit No. T089-7663-00121.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
Office of Air Quality

Appendix A to Technical Support Document (TSD):  
Technical Support Document for the NO<sub>x</sub> Budget Permit

**Source Background and Description**

**Source Name:** U.S. Steel - Gary Works  
**Source Location:** One North Broadway, Gary, Indiana 46402  
**Operated By:** United States Steel Corporation, Gary Works  
**Owned By:** United States Steel Corporation  
**ORIS Code:** 50733  
**Operation Permit No.:** T089-7663-00121  
**Permit Reviewer for NO<sub>x</sub> Budget Permit:** Madhurima Moulik

**NO<sub>x</sub> Budget Permit Application and Rule Applicability**

A complete Nitrogen Oxides (NO<sub>x</sub>) Budget Permit Application for this NO<sub>x</sub> budget source was received on September 2, 2003. The Office of Air Quality (OAQ) has reviewed a NO<sub>x</sub> budget permit application from U.S. Steel - Gary Works under 326 IAC 10-4-7 for the operation of the NO<sub>x</sub> budget source. The NO<sub>x</sub> budget source includes all NO<sub>x</sub> Budget Units at the source, including opt-in units, if applicable. The following units at the source are NO<sub>x</sub> Budget Units:

At Boiler House No. 4, emissions group 720:

- (a) Two (2) Boilers, 720 No. 1 and No. 2, identified as O4B10459 and O4B20460, constructed in 1967, equipped to combust natural gas, blast furnace gas and fuel oil, having a heat input of 500 MMBtu per hour each, exhausting through Stacks O46268 and O46269, respectively.
- (b) One (1) Boiler, 720 No. 3, identified as O4B30461, constructed in 1967, equipped to combust blast furnace gas and natural gas, having a heat input of 500 MMBtu per hour, exhausting through Stack O46270.

At the Turbo Blower Boiler House (TBBH), emissions group 701:

- (a) Three (3) Boilers, 701 No. 1, No. 2, and No. 3, identified as OTB10462, OTB20463 and OTB30464, constructed in 1948, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, having a heat input of 400 MMBtu per hour each, exhausting through Stacks OT6271, OT6272 and OT6273, respectively.
- (b) One (1) Boiler 701 No. 5, identified as OTB50466, constructed in 1958, equipped to combust blast furnace gas, coke oven gas, fuel oil and natural gas, having a heat input of 450 MMBtu per hour, exhausting through Stack OT6275.
- (c) One (1) boiler 701 No. 6, identified as OTB60467, constructed prior to August 17, 1971,



equipped to combust blast furnace gas and natural gas, having a heat input capacity of 710 MMBtu per hour, exhausting through Stack OT6276.

Pursuant to 326 IAC 10-4-7, the NO<sub>x</sub> budget permit shall be a complete and segregable portion of the Part 70 permit and the NO<sub>x</sub> budget portion of the Part 70 permit shall be administered in accordance with 326 IAC 2-7, except as provided otherwise by 326 IAC 10-4-7.

## Program Description

On October 27, 1998, the U.S. EPA promulgated final federal rules requiring 22 states and the District of Columbia to submit state implementation plan (SIP) revisions to reduce the regional transport of ozone. The federal rule focused on reducing NO<sub>x</sub> emissions in the affected states. In the federal rule, the U.S. EPA established a NO<sub>x</sub> emission "budget" for each of the affected states and the District of Columbia. The "budget" represents a reduction from emissions in the year 2007 that the U.S. EPA believes will reduce the transport of NO<sub>x</sub> emissions and will assist downwind areas in meeting ozone air quality standards. The states must demonstrate compliance with the "budget" by implementing control measures to reduce NO<sub>x</sub> emissions beginning May 31, 2004. While the rule does not mandate which sources will have to reduce emissions, the rule did provide options that would result in a 65% reduction of NO<sub>x</sub> emissions from utility boilers and a 60% reduction from large industrial (non-utility) boilers and turbines. IDEM developed the NO<sub>x</sub> Budget Trading Program in 326 IAC 10-4 in response to this mandate. The NO<sub>x</sub> reductions that will be achieved by this rule will result in significant air quality improvements throughout the state of Indiana, and will be especially important in those areas of the state where ozone levels exceed or regularly approach state and federal air quality health standards.

The Nitrogen Oxides Budget Trading Program is a regional cap and trade program among all the states subject to the NO<sub>x</sub> SIP call. Electricity generating units (EGUs) and non-electricity generating units (non-EGUs) are allocated allowances for tons of NO<sub>x</sub> that they are allowed to emit during the ozone season. IDEM allocates NO<sub>x</sub> allowances for the affected units, and owners or operators of these units are able to buy, sell, or trade allowances, as necessary, to demonstrate compliance with the unit's NO<sub>x</sub> emissions cap. Because this program is a regional program administered by U.S. EPA, sources are able to buy, sell or trade allowances across state boundaries and between different types of units and sources. More information about the NO<sub>x</sub> SIP Call can be found at: <http://www.epa.gov/airmarkets/fednox/index.html> and <http://www.in.gov/idem/air/standard/Sip/index.html>.

### 326 IAC 10-4 (NO<sub>x</sub> Budget Trading Program) Requirements

- (a) Pursuant to 326 IAC 10-4-4(b), the owners and operators and, to the extent applicable, the NO<sub>x</sub> authorized account representative of the NO<sub>x</sub> budget source and each NO<sub>x</sub> budget unit at the source shall comply with the monitoring requirements of 40 CFR 75 and 326 IAC 10-4-12. The emissions measurements recorded and reported in accordance with 40 CFR 75 and 326 IAC 10-4-12 shall be used to determine compliance by each unit with the NO<sub>x</sub> budget emissions limitation under 326 IAC 10-4-4(c).
- (b) Pursuant to 326 IAC 10-4-4(c), the owners and operators of the NO<sub>x</sub> budget source and each NO<sub>x</sub> budget unit at the source shall hold NO<sub>x</sub> allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NO<sub>x</sub> allowance transfer deadline, in each unit's compliance account and the source's overdraft account in an amount:
  - (1) Not less than the total NO<sub>x</sub> emissions for the ozone control period from the unit, as determined in accordance with 40 CFR 75 and 326 IAC 10-4-12;

- (2) To account for excess emissions for a prior ozone control period under 326 IAC 10-4-10(k)(5); or
- (3) To account for withdrawal from the NO<sub>x</sub> budget trading program, or a change in regulatory status of a NO<sub>x</sub> budget opt-in unit.

The NO<sub>x</sub> budget units shall be subject to the requirements under 326 IAC 10-4-4(c)(1) starting on May 31, 2004.

- (c) Pursuant to 326 IAC 10-4-4(d), the owners and operators of each NO<sub>x</sub> budget unit that has excess emissions in any ozone control period shall do the following:
  - (1) Surrender the NO<sub>x</sub> allowances required for deduction under 326 IAC 10-4-10(k)(5).
  - (2) Pay any fine, penalty, or assessment or comply with any other remedy imposed under 326 IAC 10-4-10(k)(7).
- (d) Pursuant to 326 IAC 10-4-4(e)(1), unless otherwise provided, the owners and operators of the NO<sub>x</sub> budget source and each NO<sub>x</sub> budget unit at the source shall keep either 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:
  - (1) The account certificate of representation for the NO<sub>x</sub> authorized account representative for the source and each NO<sub>x</sub> budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate of representation, in accordance with 326 IAC 10-4-6(h). The certificate and documents shall be retained either on site at the source or at a central location within Indiana for those owners or operators with unattended sources beyond the five (5) year period until the documents are superseded because of the submission of a new account certificate of representation changing the NO<sub>x</sub> authorized account representative.
  - (2) All emissions monitoring information, in accordance with 40 CFR 75 and 326 IAC 10-4-12, provided that to the extent that 40 CFR 75 and 326 IAC 10-4-12 provide for a three (3) year period for record keeping, the three (3) year period shall apply.
  - (3) Copies of all reports, compliance certifications, and other submissions and all records made or required under the NO<sub>x</sub> budget trading program.
  - (4) Copies of all documents used to complete a NO<sub>x</sub> budget permit application and any other submission under the NO<sub>x</sub> budget trading program or to demonstrate compliance with the requirements of the NO<sub>x</sub> budget trading program.

This period may be extended for cause, at any time prior to the end of five (5) years, in writing by IDEM, OAQ or the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to IDEM, OAQ or U.S. EPA within three (3) business days following receipt of a written request. Nothing in 326 IAC 10-4-4(e) shall alter the record retention requirements for a source under 40 CFR 75. Unless otherwise provided, all records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

- (e) Pursuant to 326 IAC 10-4-4(e)(2), the NO<sub>x</sub> authorized account representative of the NO<sub>x</sub> budget source and each NO<sub>x</sub> budget unit at the source shall submit the reports and compliance certifications required under the NO<sub>x</sub> budget trading program, including those under 326 IAC 10-4-8, 326 IAC 10-4-12, or 326 IAC 10-4-13.

## Monitoring

The NO<sub>x</sub> Budget Trading Program references monitoring and reporting requirements from the Acid Rain program at 40 CFR Part 75. These provisions require, for most sources, the use of continuous emissions monitors (CEMs). A CEM is a system composed of various equipment that continuously measures the amount of nitrogen oxides emitted into the atmosphere in exhaust gases from the NO<sub>x</sub> budget unit's stack.

## NO<sub>x</sub> Emissions Allocations

- (a) Pursuant to 326 IAC 10-4-7(e), this NO<sub>x</sub> budget permit is deemed to incorporate automatically, upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NO<sub>x</sub> allowance to or from the compliance accounts of the NO<sub>x</sub> budget units or the overdraft account of the NO<sub>x</sub> budget source covered by this permit. The allocations for each ozone season and transaction information can be found at: <http://www.epa.gov/airmarkets/tracking/factsheet.html>. In addition, IDEM, OAQ posts proposed allocations prior to submitting them to the U.S. EPA on the following web site: <http://www.in.gov/idem/air/standard/Sip/index.html>.
- (b) The following requirements from 326 IAC 10-4-4(c) apply to NO<sub>x</sub> allowances:
- (1) Each ton of NO<sub>x</sub> emitted in excess of the NO<sub>x</sub> budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.
  - (2) NO<sub>x</sub> allowances shall be held in, deducted from, or transferred among NO<sub>x</sub> allowance tracking system accounts in accordance with 326 IAC 10-4-9 through 11, 326 IAC 10-4-13, and 326 IAC 10-4-14.
  - (3) A NO<sub>x</sub> allowance shall not be deducted, in order to comply with the requirements under 326 IAC 10-4-4(c)(1), for an ozone control period in a year prior to the year for which the NO<sub>x</sub> allowance was allocated.
  - (4) A NO<sub>x</sub> allowance allocated under the NO<sub>x</sub> budget trading program is a limited authorization to emit one (1) ton of NO<sub>x</sub> in accordance with the NO<sub>x</sub> budget trading program. No provision of the NO<sub>x</sub> budget trading program, the NO<sub>x</sub> budget permit application, the NO<sub>x</sub> budget permit, or an exemption under 326 IAC 10-4-3 and no provision of law shall be construed to limit the authority of the U.S. EPA or IDEM, OAQ to terminate or limit the authorization.
  - (5) A NO<sub>x</sub> allowance allocated under the NO<sub>x</sub> budget trading program does not constitute a property right.
  - (6) Upon recordation by the U.S. EPA under 326 IAC 10-4-10, 326 IAC 10-4-11, or 326 IAC 10-4-13, every allocation, transfer, or deduction of a NO<sub>x</sub> allowance to or from a NO<sub>x</sub> budget unit's compliance account or the overdraft account of the source where the unit is located is deemed to amend automatically, and become

a part of, this NO<sub>x</sub> budget permit of the NO<sub>x</sub> budget unit by operation of law without any further review.

### **Other Record Keeping and Reporting Requirements**

Pursuant to 326 IAC 10-4-7(g), except as provided in 326 IAC 10-7-4(e), IDEM, OAQ shall revise the NO<sub>x</sub> budget permit, as necessary, in accordance with the permit modification and revision provisions under 326 IAC 2-7.

Pursuant to 326 IAC 10-4-7(b)(1)(C), for permit renewal, the NO<sub>x</sub> authorized account representative shall submit a complete NO<sub>x</sub> budget permit application covering the NO<sub>x</sub> budget units at the source in accordance with 326 IAC 2-7-4(a)(1)(D) with the Part 70 permit renewal.

### **Submissions**

The NO<sub>x</sub> authorized account representative for each NO<sub>x</sub> budget source on behalf of which a submission is made must sign and certify every report or other submission required by the NO<sub>x</sub> budget permit. The NO<sub>x</sub> authorized account representative must include the following certification statement in every submission: "I am authorized to make this submission on behalf of the owners and operators of the NO<sub>x</sub> budget sources or NO<sub>x</sub> budget 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."

### **Recommendation**

The staff recommends to the Commissioner that the NO<sub>x</sub> budget permit be approved.

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

### **Additional Information**

Questions regarding the NO<sub>x</sub> budget permit can be directed to Madhurima Moulik at the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ), 100 North Senate Avenue, Indianapolis, Indiana 46204 or by telephone at (317) 233-0868 or toll free at 1-800-451-6027 extension 3-0868.

The source will be inspected by IDEM's compliance inspection staff. Persons seeking to obtain information regarding the source's compliance status or to report any potential violation of any permit condition should contact Dave Sampias by telephone at (219) 881-6712 or toll free at 1-888-209-8892 or by mail at the IDEM Northwest Regional Office, 504 Broadway, Suite 418, Gary, Indiana 46402.

Copies of the Code of Federal Regulations (CFR) referenced in the permit may be obtained from:  
Indiana Department of Environmental Management  
Office of Air Quality  
100 North Senate Avenue  
Indianapolis, Indiana 46204

U.S. Steel - Gary Works  
Gary, Indiana  
NO<sub>x</sub> Budget Permit Reviewer: Madhurima Moulik

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