INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: May 27, 2010

RE: ArcelorMittal USA, Inc. / 089-18491-00316

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

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this permit modification is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of a Title V operating permit or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impractible to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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

Enclosures
FNTV-PMOD.doc 3/27/08

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Mr. Michael E. Long
ArcelorMittal USA, Inc.
3210 Watling Street MC 8-130
East Chicago, Indiana 46312

May 27, 2010

Re: 089-18491-00316
Third Significant Permit Modification to:
Part 70 Operating Permit No. 089-6577-00316

Dear Mr. Long:

ArcelorMittal USA, Inc. (formerly Mittal Steel USA Inc. - Indiana Harbor East) was issued Part 70 Operating Permit No. 089-6577-00316 on September 12, 2006 for an iron and steel mill. A petition for administrative review of their Part 70 Operating Permit (Cause No. 06-A-J-3808) was filed on October 31, 2006. Pursuant to 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

This Significant Permit Modification No. 089-18491-000316 resolves the petition and Part 70 Operating Permit No. T089-6577-00316 is modified in a manner so as to affect the terms addressed in the petition.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Teresa Freeman, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or call at (800) 451-6027, and ask for Teresa Freeman or extension 4-1243, or dial (317) 234-1243.

Sincerely,

Donald F. Robin, P.E., Section Chief
Permits Branch
Office of Air Quality

Attachments
DFR/tlf

cc: File – Lake County
U.S. EPA, Region V
Lake County Health Department
IDEM Northwest Regional Office
Office of Attorney General-Denise A. Walker
Compliance and Enforcement Branch
IDEM, Office of General Counsel Elizabeth A. Zlatos

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

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

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

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

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

Operation Permit No.: T089-6577-00316	
Original signed by: Nisha Sizemore, Branch Chief Office of Air Quality	Issuance Date: September 12, 2006 Expiration Date: September 12, 2011

First Administrative Amendment No.: 089-23628-00316, issued November 1, 2006
First Significant Permit Modification No.: 089-23470-00316, issued January 22, 2007
Second Significant Permit Modification No.: 089-25725-00316, issued July 9, 2008
Second Administrative Amendment No.: 089-26796-00316, issued August 20, 2008
Third Significant Permit Modification No.: 089-22044-00316, issued November 3, 2008

Fourth Significant Permit Modification No.: 089-18491-00316	
Issued by/Original Signed By: Donald F. Robin Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: May 27, 2010 Expiration Date: September 12, 2011

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D.13.9 Record Keeping Requirements
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D.14.1 Lake County PM10 emission requirements [326 IAC 6.8-2]
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D.14.5 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]
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D.15 FACILITY OPERATION CONDITIONS - Storage Vessels

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D.16 FACILITY OPERATION CONDITIONS - Insignificant Activities

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E.1 Automatic Incorporation of Definitions [326 IAC 10-4-7(e)]
E.2 Standard Permit Requirements [326 IAC 10-4-4(a)]
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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)]

F Fugitive Dust Sources

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

G.1 Iron and Steel MACT

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

G.2 Coal Preparation Plants

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

G.3 Lime Manufacturing Plants

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

G.4 Steel Pickling

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

G.5 Storage Vessels

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

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

SECTION A SOURCE SUMMARY

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

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

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

Source Address:	3210 Watling Street, East Chicago, Indiana 46312
Mailing Address:	3210 Watling Street MC 8-130, East Chicago, Indiana 46312
General Source Phone Number:	(219) 391-2133
SIC Code:	3312
County Location:	Lake County
Source Location Status:	Nonattainment for 8-hour ozone standard and PM2.5 Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD, Emission Offset, and Nonattainment NSR Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) ArcelorMittal USA, Inc. (Plant ID 089-00316), the primary operation, is located at, 3210 Watling Street, East Chicago, Indiana and

(b) Fritz Enterprises Inc. (Plant ID 089-00465), the on-site contractor (an iron and steel recycling process and a coke screening plant), is located at 3210 Watling Street, East Chicago, Indiana

(c) Beemsterboer Slag and Ballast Corp. (Plant ID 089-00356), the on-site contractor (a slag crushing and sizing operation), is located at 3210 Watling Street, East Chicago, Indiana;

(d) East Chicago Recovery (Plant ID 089-00358), the on-site contractor (a briquetting facility), is located at 3236 Watling Street, East Chicago, Indiana.

(e) Heckett MultiServ (Plant ID 089-00367), the on-site contractor (a scarfing operation), is located at 3236 Watling Street, East Chicago, Indiana;

(f) Oil Technology (Plant ID 089-00369), the on-site contractor (a used oil recycling facility), is located at 3236 Watling Street, East Chicago, Indiana;

(g) Mid Continent Coal and Coke (Plant ID 089-00371), the on-site contractor (a metallurgical coke separation facility), is located at 3236 Watling Street, East Chicago, Indiana;

(h) Indiana Harbor Coke Company (IHCC) (Plant ID 089-00382), the on-site contractor (a heat recovery coal carbonization facility), is located at 3210 Watling Street, East Chicago, Indiana 46312;

(i) Cokenergy, Inc. (Plant ID 089-00383), the on-site contractor (a heated gas steam from coal carbonization operation), is located at 3210 Watling Street, East Chicago, Indiana;

(j) LAFARGE North America (Plant ID 089-00458), the on-site contractor (a slag granulator and pelletizer operation), is located at 3210 Watling Street, East Chicago, Indiana

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

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

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

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

ArcelorMittal USA, Inc. (Plant ID 089-00316), consists of the following permitted emission units and pollution control devices:

(a) No. 5 and 6 Blast Furnace processes, with a combined estimated maximum production rate of 2,506,000 tons per year of hot iron metal, comprised of the following facilities, process equipment and operational practices:

(1) One (1) Pulverized Coal Storage Bin with Bin Vent Filter H (191), having a 400 ton storage capacity, estimated maximum throughput of 325,000 tons per year of pulverized coal, and a flow rate of 3500 acfm, exhausting through stack 191 and constructed in 1991.

(2) No. 5 Blast Furnace, installed in 1939 consisting of:

(A) One (1) Stockhouse, including coke screening.

(B) No. 5 Blast Furnace Stoves (3 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast

furnace gas as fuel, sending hot air blast to No. 5 Blast Furnace and exhausting combustion emissions through stack 5.

(C) No. 5 Blast Furnace with an integral blast furnace gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 5 Blast Furnace Stoves.

(D) No. 5 Blast Furnace Casthouse with casting emissions controlled by two (2) No. 5 Blast Furnace Casthouse Collection System Scrubbers having a flow rate of 40,000 acfm, exhausting through stack 1 with construction upgrades in 1986 and 1991.

(E) One (1) No. 5 Blast Furnace Casthouse Roof Monitor.

(F) Slag pots and pits for handling slag waste.

(3) No. 6 Blast Furnace, installed in 1942, consisting of:

(A) One (1) Stockhouse, including coke screening.

(B) No. 6 Blast Furnace Stoves (4 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 6 Blast Furnace and exhausting combustion emissions through stack 6.

(C) No. 6 Blast Furnace with an integral gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 6 Blast Furnace Stoves.

(D) No. 6 Blast Furnace Casthouse with casting emission controlled by No. 6 Blast Furnace Casthouse Collection System Scrubber having a flow rate of 40,000 acfm, exhausting through stack 2, with a construction upgrade in 1986 on this equipment.

(E) No. 6 Blast Furnace Casthouse Roof Monitor.

(F) Slag pots and pits for handling slag waste.

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

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

(1) Raw material handling and stockhouse material handling for receiving, storage and delivery of blast furnace raw material. The handling operation has an estimated maximum throughput of 7,704,971 tons of iron ore pellets per year; stored in four (4) storage bins with 8073 tons total capacity; 1,514, 604 tons of coke per year, stored in four (4) storage bins with 1314 tons total capacity; and 1,082,736 tons of flux and miscellaneous material per year, stored in six (6) storage bins with 4200 tons total capacity. Emissions are controlled by two (2) baghouses: (1) identified as 168-stockhouse pellet and flux handling baghouse, having a flow rate of 82,500 acfm and (2) identified as 172-stockhouse coke handling baghouse having a flow rate of 27, 500 acfm.

(2) Coke screening operation with emissions controlled by a baghouse, previously identified as 169, having a flow rate of 47,116 acfm and an average screening capacity of 400 tons per hour. (This equipment is not currently operating)

(3) One (1) blast furnace, identified as No. 7, constructed in 1980 with blast furnace gas processed by a gas cleaning system and equipped with three (3) flares, each with a 1.15 MMBtu per hour igniter capacity of flaring one-third of the maximum generated blast furnace gas through stack 195.

(4) No. 7 Blast Furnace Casthouse constructed in 1980 with casting emissions controlled by two (2) baghouses: identified as 166 (West baghouse) having a flow rate of 500,000 acfm; and 167 (East baghouse) having a flow rate of 300,000 acfm. Emissions from No. 7 blast furnace casthouse are also controlled by trough and runner covers and hoods over the tap holes and pugh ladle addition points.

(5) No. 7 Blast Furnace stoves (3 units) using blast furnace gas and natural gas as fuel with an estimated maximum combined heat input capacity of 953 MMBtu/ hr and emissions exhausting through stack 170. Significant Source Modification 089-16966-00316, issued on November 26, 2003 allows for a blast capacity increase and the construction of a fourth (4th) stove.

(6) One (1) Casthouse Roof Monitor 171.

(7) One (1) coke transfer tower (No.4), identified as164, installed in 1997, with a an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled by one (1) baghouse, and exhausting inside the tower.

(8) One (1) coke transfer point, identified as 169, installed in 1997, with an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled.

(9) Slag pits

(c) One (1) Sinter Plant, constructed in 1959, with an estimated maximum raw material usage of 1.4 million tons per year comprised of the following facilities, process equipment, and operational practices:

(1) Raw material handling and blend site.

(2) One (1)-sinter plant windbox, controlled by the main baghouse with emissions exhausting through stack 7.

(3) One (1) sinter plant discharge end, controlled by the discharge end baghouse, and one (1) cooler station, partially controlled by the discharge end baghouse, with emissions exhausting through stack 8, installed in 1959.

(4) One (1) sinter plant upper screening station, with conveyors, screen hoods, and duct system routed to and controlled by the upper screening station baghouse with emissions exhausting through stack 11. This equipment was constructed in 1998.

(5) Sinter loading, unloading, and transfer operations.

(d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:

(1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).

(2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.

(3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.

(4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187,

(5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.

(e) The No. 2 Basic Oxygen Furnace (BOF) Shop, comprised of the following facilities, process equipment, and operational practices:

(1) Raw material handling, ladle additive truck hopper loading system having an estimated maximum throughput of 328,000 tons per year of alloy and flux. Emissions from the truck hopper are controlled by a baghouse, which has a flow rate of 75,000-acfm exhausting through stack 150. Emissions from the alloy and flux storage and handling system are controlled by a baghouse, which has a flow rate of 50,000-acfm, exhausting through stack 151. Both baghouses were constructed in 1974.

(2) One (1) Hot metal station containing reladling, desulfurization, and slag skimming operations having an estimated maximum capacity of 4,029,600 tons of hot metal per year. Captured emissions from the hot metal station and charging aisle are controlled by a baghouse having a flow rate of 360,000-acfm, exhausting through stack 152. Original construction was 1974 and an upgrade was completed in August 1994 as part of a consent decree.

(3) Two (2) BOFs, identified as No. 10 and No. 20, and operations including charging, oxygen blowing, tapping, and alloy addition with a total estimated maximum capacity of 4,543,600 tons of hot metal and scrap per year. Captured emissions controlled by two (2) off-gas scrubber systems with flares having a flow rate of 1,500,000-acfm each, exhausting through flare stacks 147 and 148. Construction commenced on this equipment in 1970. Uncaptured emissions exhausting through roof monitor 153 and charging and miscellaneous furnace emissions exhausting through a secondary ventilation scrubber having a flow rate of 194,000-acfm, exhausting through stack 149. The Off-gas scrubber systems were constructed in 1974 and the Secondary Vent scrubber was replaced in 2003.

(4) One (1) ladle metallurgy facility (LMF) station consisting of alloy addition, electric arc reheat, slag skimming, and raw material handling specifically for the metallurgy station with an estimated maximum throughput of 4,029,600 tons per year of steel. Captured emissions are controlled by a baghouse having a flow rate of 135,000-acfm, exhausting through stack 154. This equipment was constructed in 1985.

(5) One (1) Continuous casting operations consisting of slab casters, and three (3) torch cutoff machines. Leaded emissions from the casters exhaust through the caster fume baghouse, which has a flow rate of 171,000 acfm, exhausting through stack 159. Steam from the water spray cooling exhausts through three (3) vents along the caster, identified as stacks 160, 161, and 162. Fugitive emissions from the casting operations exhaust through a roof monitor, identified as 158. This equipment was constructed in 1985. (Bloom caster at this site is permanently shutdown)

(6) A tundish dump and repair station with leaded emissions controlled by a baghouse, which has a flow rate of 50,000 acfm, exhausting through stack 156. This equipment was constructed in 1989.

(7) Miscellaneous natural gas combustion used for ladle preheating, exhausting through stack 157, and tundish and ladle shroud preheating and drying, exhausting through No.2 BOF Shop Roof Monitors 155.

(8) Slag skimming into slag pots.

(f) No.4 Basic Oxygen Furnace (BOF) comprised of the following facilities, process equipment, and operational practices:

(1) Flux, alloy and waste oxide briquettes (WOB) unloading, hopper house and storage/handling facility.

(2) Scrap metal unloading/storage (scrap yard) and scrap metal charging box.

(3) Two (2) Hot metal transfer and desulfurization operations having an estimated maximum capacity of 4,222,320 tons of hot metal per year with captured emissions controlled by two (2) baghouses having flow rates of 190,000 and 220,000 acfm, exhausting through stacks 26 and 27. This equipment was constructed in 1977.

(4) Two (2) BOFs, identified as No. 50 and No. 60 and operations including charging, blowing, tapping, flux and alloy additions, and slag skimming with a total estimated maximum capacity of 5,676,366 tons of hot metal and scrap per year with uncaptured emissions exhausting through a roof monitor (stack 29), and captured emissions controlled by a four (4) off-gas scrubber system, exhausting through stack 38. The scrubber system equipment was modernized in 2007. Charging, tapping, and miscellaneous furnace emissions are controlled by a secondary ventilation baghouse having a flow rate of 600,000 acfm, exhausting through stack 37. This equipment was constructed in 1977 and modified in 1996.

(5) Raw material handling system for the RHOB facility, including hopper house, alloy and flux storage bins having an estimated maximum throughput of 4,700,000 tons per year and dust emissions controlled by a baghouse having a flow rate of 48,100 acfm and exhausting through stack 33.

(6) One (1) RHOB vacuum degasser with natural gas-fired flare for exhaust gas control with an estimated maximum throughput of 4,686,600 tons/year of steel, exhausting through stack 32. This equipment was constructed in 1987.

(7) Ladle and tundish preheaters (stack 36).

(8) Two (2) argon stirring stations and one (1) continuous caster with tundish, caster mold exhausting through one (1) mold fume baghouse (stack 214) for housekeeping purposes only, and casting machine with cutoff, with steam vents exhausting through stacks 24 and 25.

(9) Torch cutoff exhausting into the building (stack 31).

(10) Maintenance and miscellaneous operations associated with the BOF.

(11) Furnace Additives Transfer House Baghouses, exhausting inside the buildings (stacks 28 and 35).

(12) Slag dumping.

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

(1) Limestone unloading, storage and screening area.

(2) Two (2) Limestone preheaters, two (2) rotary kilns with an estimated maximum heat input rate of 284 MMBtu/hr fueled by natural gas or residual fuel oil, with exhaust from kilns routed back to preheaters and then to a set of multiclones. The remaining emissions from the kilns and preheaters are controlled by two (2) baghouses ("213-1" & "213-2") exhausting through stacks 45 and 49.

(3) Dust fines are sent to two dust bins, with emissions controlled by baghouses ("217-1" & "217-2") and exhausting through stack 46.

(4) Ten (10) storage silos receive an estimated maximum of 569,400 tons per year of finished lime, with fines controlled by lime handling baghouses ("413") and exhausting through stack 47.

(5) Fugitive control project including loadout spout on rejection bin controlled by existing kiln baghouse, preheater area enclosure around two (2) kiln feed hood/ ram loadout dribbles, preheater area loading spouts for truck loading with displaced air controlled by existing kiln baghouse and ten (10) loading spouts at the truck loadout area with exhaust controlled by loadout baghouse ("408") and exhausting through stack 48. Lime product handling emissions from transfer points between both sides of lime cooler rotary valves and lime product/reject handling belts inside the firing building are controlled by a baghouse ("420") exhausting through stack 50. This equipment was upgraded in 1997.

(h) No. 1 Electric Arc Furnace comprised of the following facilities, process equipment, and operational practices:

(1) Bulk alloy handling: Raw material unloading, piling, and transporting of scrap metal, fluxes, and alloys.

(2) Raw material charging to the electric arc furnace.

(3) One (1) electric arc furnace with eccentric bottom tapping (EBT), having an estimated maximum annual capacity of 975,000 tons with emissions controlled by a baghouse having a flow rate of 500,000 acfm exhausting through baghouse roof monitor (141) commencing operation in 1970 and upgraded in 1996.

(4) One (1) ladle metallurgical facility (LMF) station constructed in 1989 with a maximum annual capacity of 975,900 tons with emissions controlled by a baghouse having a flow rate of 40,000 acfm exhausting through stack 143.

(5) Five (5) natural gas ladle preheaters constructed in 1990, each has one (1) or two (2) burners with a 15 MMBtu per hour combined maximum heat input and emissions uncontrolled exhausting through stack 140.

(6) One (1) continuous casting tundish and one (1) continuous casting mold operations controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 137.

(7) Cooling operation exhausting through stack 145.

(8) Slag handling operations.

(9) EAF Shop Roof Monitor (stack 142).

(10) One (1) leaded steel torch cutoff operation controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 138.

(11) One (1) leaded steel LMF ladle dump and repair station controlled by a baghouse during breakout and removal of lead-contaminated refractory materials having a flow rate of 100,000 acfm and exhausting through stack 136.

(i) Direct Reduced Iron (DRI) storage and conveying system constructed in 2001, comprised of the following facilities, process equipment, and operational practices:

(1) One (1) enclosed truck/trailer unloading area identified as 213 with a maximum throughput of 400,000 tons per year of DRI.

(2) A DRI conveyor system consisting of:

(A) One (1) 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents.
(B) One (1) horizontal trough belt stocking conveyor.
(C) Multiple Delivery Conveyors.

(3) Emission control system for (1) and (2) to remove particulate matter consisting of:

(A) Bin Vent Filter No. 1 (210)
(B) Bin Vent Filter No. 2 (211)
(C) Bin Vent Filter No. 3 (212)

(j) 80" Hot Strip Mill comprised of the following facilities, process equipment, and operational practices:

(1) One (1) No. 4 Walking Beam Furnace, with an estimated maximum heat input rate of 720 MMBtu/hr, equipped with low NOx burners and using natural gas as fuel, exhausting through stack 101 and 102, installed in 2001.

(2) One (1) No. 5 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 107, installed in 1995.

(3) One (1) No. 6 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 108, installed in 1995.

(4) One (1) Hot Rolling Mill Operation, including roughing mill with cooling water spray, crop shear and finishing stands exhausting to roof monitor 109.

(k) 12" Bar Mill comprised of the following facilities, process equipment, and operational practices:

(1) One (1) Billet Inspection Line Shotblaster, installed in 1994 with emissions controlled by a baghouse having an estimated maximum flow rate of 5000 acfm vented inside the building.

(2) One (1) Billet Grinding installed in 1977 exhausting through stack 87.

(3) One (1) natural gas fired Billet Reheat Furnace, installed in 1977, having an estimated maximum heat input of 375 MMBtu/hr, exhausting through stack 89

(4) One (1) 23 Stand Rolling Mill exhausting to roof monitor 88.

(l) No. 3 Cold Strip Mill comprised of the following facilities, process equipment, and operational practices:

(1) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.

(2) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.

(3) 56 inch Tandem Mill (4 Stands) controlled by a mist eliminator exhausting through stack 177.

(4) 80 inch Tandem Mill (5 Stands) controlled by a mist eliminator exhausting through stack 175.

(5) Temper Mill No. 28 exhausting through stack 180.

(6) Temper Mill No. 29 exhausting through stack 181.

(m) Coated Products comprised of the following facilities, process equipment, and operational practices:

(1) No. 3 Galvanizing Line constructed in 1955, including:

(A) One (1) natural gas fired Non-Oxidizing Furnace with an estimated maximum heat input of 62 MMBtu/hr, equipped with recuperators waste gas burners exhausting through stack 81.

(B) One (1) natural gas fired reducing furnace with an estimated maximum heat input of 12.8 MMBtu/hr, hydrogen and nitrogen (static atmosphere), vented inside the building (open roof monitor-81A).

(2) No. 5 Galvanizing Line constructed in 1968, including:

(A) One (1) natural gas fired Radiant tube reducing furnace utilizing recuperative radiant tube burners with a an estimated maximum heat input of 112.6 MMBtu/hr, exhausting through stack 182.

(B) One (1) natural gas fired Galvanneal Furnace with an estimated maximum heat input of 36 MMBtu/hr, exhausting inside the building (open roof monitor)-182A.

(3) No. 4 Aluminizing Line constructed in 1955, including:

(A) One (1) natural gas fired Oxidizing Furnace with an estimated maximum heat input of 27 MMBtu/hr exhausting through stack 84.

(B) One (1) natural gas fired 4-line radiant tube reducing furnace section with an estimated maximum heat input of 19.14 MMBtu/hr, equipped with low NOx twin regenerative burners, exhausting through stack 84.

(C) hot dip Al/Si Pot, roll preheater and premelt furnace.

(4) No. 1 Normalizer constructed in 1957, including:

(A) One (1) natural gas fired reducing furnace with 193 natural gas fired Eclipse SER burners with a total heat input of 31.652 MMBtu/hr exhausting through stack 183.

(B) One (1) natural gas fired flame heater furnace with an estimated maximum heat input of 28 MMBtu/hr annealing furnace exhausting through stack 183

(C) One (1) acid cleaning tank using hydrochloric acid and one (1) cascade rinse tank with emissions controlled by a fume scrubber and exhausting through stack 184.

(5) No. 3 Continuous Anneal Line constructed in 1982, including:

(A) One (1) natural gas fired Annealing Furnace and One (1) natural gas fired Age Furnace with an estimated total maximum heat input of 108 MMBtu/hr, hydrogen and nitrogen (static atmosphere), vented through stack 173.

(B) One (1) acid cleaning tank using hydrochloric acid with emissions controlled by a fume scrubber and exhausting through stack 174.

(6) Batch Anneal Facilities including:

(A) No. 5 Batch Anneal constructed in 1958, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 136 MMBtu/hr exhausting through stack 112.

(B) No. 6 Batch Anneal constructed in 1970, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 205 MMBtu/hr exhausting through stack 113.

(n) Utilities comprised of the following facilities, process equipment, and operational practices:

(1) No. 2 AC Station including:

(A) Three (3) Boilers identified as 211-213, fired by natural gas and blast furnace gas from No. 5 and No. 6 blast furnaces:

(i) Boiler 211 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 125 and 126.

(ii) Boiler 212 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 127 and 128.

(iii) Boiler 213 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1949 exhausting through stacks 129 and 130.

(B) Two (2) Blast Furnace Gas Flares to burn excess blast furnace gas from No. 5 and No. 6 Blast Furnaces exhausting through stack 131.

(C) Nine (9) turbo blowers and five (5) electricity generators.

(2) No. 5 Boilerhouse installed in 1976, including Boilers 501-503 fired by blast furnace gas from No. 7 blast furnace and mixed gas, each with an estimated maximum heat input of 520 MMBtu/hr exhausting through stack 134. The boilers produce steam, which is used in three turbo blowers to produce blast air, at generators to produce electrical power, and for general plant use.

(o) Shops comprised of the following facilities, process equipment, and operational practices:

(1) Mold Foundry Building: Pugh Ladle Car Preparation, dekishing, debricking and drying fired by natural gas (44) and Pugh ladle lancing fired by natural gas with emissions controlled by former mold foundry baghouse exhausting through stack

43. This baghouse also controls Pugh Ladle pigging emissions resulting from the adjacent contractor's operation.

(2) No. 6 Roll shop for 12 inch bar mill including shotblaster with emissions controlled by a baghouse and exhausting through stack 200.

(3) Electric Shop including shotblaster with emissions controlled by a baghouse and exhausting through stack 201, blaster baghouse unloading, paint booth, varnish dip tanks and undercutting booth.

(4) No. 4 Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 203, Wheelabrator shotblaster with emissions controlled by a baghouse and exhausting through stack 204.

(5) No. 4 A Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 205 and Pangborn shotblaster with emissions controlled by a baghouse and exhausting through stack 206.

(6) No. 5 Roll Shop.

(7) Mobile Equipment shop including refrigerant recovery and parts cleaning.

(8) Equipment Repair Shop including Machine Shop (Plant 2).

(9) Mason Building Shop.

(10) Refrigeration Shop.

(11) Fabrication and Repair Shop (Plant 1).

(p) Storage Vessels:

(1) One (1) 21,380 gallon tank (T19K1) containing Diesel No. 2, located at the "E" Yard – Internal Logistics, constructed prior to 1972.

(2) One (1) 21,380 gallon tank (T-8H1) containing Diesel No. 2, located at the "B" Yard – 2 BOF, constructed prior to 1972.

(3) One (1) 10,000 gallon tank (T20K-1) containing Diesel No. 2, located at the Main Shop Fueling Station – Internal Logistics, constructed in 1997.

(4) One (1) 8,000 gallon tank (T02E-1) containing Diesel No. 2, located south of the bar company scrap yard - 12" Bar Mill constructed in 1999.

(5) One (1) 7,500 gallon tank (T1G-1) containing Diesel No. 2, located north of the Electric Furnace Billet Caster constructed in 1999.

(6) One (1) 6,000 gallon tank (T25E-1) containing Diesel No. 2, located at the No. 7 Blast Furnace Emergency Pump House, constructed in 1994.

(7) One (1) 5,000 gallon tank (T17P-1) containing Diesel No. 2, located at the 80" Hot Strip Mill coil carrier fuel station, constructed in 1994.

(8) One (1) 4,200 gallon tank (T10-200) containing Diesel No. 2, located at the No. 3 Cold Strip East bulk oil storage area constructed in 1970.

(9) One (1) 3,355 gallon tank (T18E-1) containing Diesel No. 2, located at the #4 BOF Mobile Equipment Shop, constructed in 1994.

(10) Two (2) 3,000 gallon tanks (T10-232a & T10-232b) containing Power Clean, located at the No. 3 Cold Strip East, Nos. 4 and 5 Hydraulic System, constructed in 1970.

(11) One (1) 130,000 gallon tank (T-17F1) containing Reclaimed oil, located at the Lime Plant, constructed in 1973.

(12) One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.

(13) One (1) 1,016,000 gallon tank (T-6F1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.

(14) One (1) 1,016,000 gallon tank (T-6F2) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.

(15) One (1) 500,000 gallon tank (T-6F3) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1975.

(16) One (1) 100,000 gallon tank (T-02F1) containing #6 fuel oil, located at the 12" Bar Mill, constructed in 1977.

(17) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.

(18) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

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

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

(a) Space heaters, process heaters, or boilers using the following fuels:

(1) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

(2) Propane or liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) Btu per hour.

(3) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.

(b) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons.

(c) A petroleum fuel, other than gasoline, dispensing facility having a storage capacity less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(d) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons. [326 IAC 8-9-1]

(2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(e) Refractory storage not requiring air pollution control equipment.

(f) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.

(g) Machining where an aqueous cutting coolant continuously floods the machining interface.

(h) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-5]

(i) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 kPa; 15 mm Hg; or 0.3 psi measured at 38 degrees C (100°F) or;

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20EC (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(j) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]

(k) Closed loop heating and cooling systems.

(l) Rolling oil recovery systems.

(m) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume.

(n) Activities associated with the transportation and treatment of sanitary sewage, provided discharge to the treatment plant is under the control of the Permittee, that is, an on-site sewage treatment facility.

(o) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs.

(p) Noncontact cooling tower systems with either of the following:

(1) Natural draft cooling towers not regulated under a NESHAP.

(2) Forced and induced draft cooling tower system not regulated under a NESHAP.

(q) Quenching operations used with heat treating processes.

(r) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.

(s) Heat exchanger cleaning and repair.

(t) Process vessel degreasing and cleaning to prepare for internal repairs.

(u) Paved and unpaved roads and parking lots with public access.

(v) Conveyors as follows:

(1) Covered conveyor for coal or coke conveying of less than or equal to 360 tons per day;

(2) Covered conveyors for limestone conveying of less than or equal to 7,200 tons per day for sources other than mineral processing plants constructed after August 31, 1983;

(3) Uncovered coal conveying of less than or equal to 120 tons per day.

(4) Underground conveyors.

(w) Asbestos abatement projects regulated by 326 IAC 14-10.

(x) Purging of gas lines and vessels that is related to routing maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(y) Flue gas conditioning systems and associated chemicals such as the following: sodium sulfate, ammonia, and sulfur trioxide.

(z) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

(aa) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(bb) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume.

(cc) On-site fire and emergency response training approved by the department.

(dd) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.8-1-2]

(ee) Purge double block and bleed valves.

(ff) Filter or coalescer media change out.

(gg) Vents from ash transport systems not operated at positive pressure.

(hh) A laboratory as defined in 326 IAC 2-7-1(21)(D)

(ii) Any unit emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP

(1) Process Water Cooling Towers (chlorine addition)

A.5 Fugitive Dust Sources

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

(a) Paved Roads and Parking Lots

(b) Unpaved Roads and Parking Lots

(c) Batch Transfer-Loading and Unloading Operations

(d) Continuous Transfer In and Out of Storage Piles

(e) Batch Transfer Operations-Slag and Kish Handling

(f) Wind Erosion from Storage Piles and Open Areas

(g) In Plant Transfer by Truck or Rail

(h) In Plant Transfer by Front End Loader or Skip Hoist

(i) Material Processing Facility (except Crusher Fugitive Emissions)

(j) Crusher Fugitive Emissions

(k) Material Processing Facility Building Openings

(l) Dust Handling Equipment

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T089-6577-00316, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

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

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

(a) For compliance certification purposes, the term "source" refers to ArcelorMittal USA, Inc. (Plant ID 089-00316).

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

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

and

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

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

(d) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of ArcelorMittal USA, Inc. (Plant ID 089-00316), currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of ArcelorMittal USA, Inc. (Plant ID 089-00316).

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

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

(a) The Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) To the extent the Permittee is required by 40 CFR Part 60 or Part 63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

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

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

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

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

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(9) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

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

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

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

(a) All terms and conditions of permits established prior to T089-6577-00316 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

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

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

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

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

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

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

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

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

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

Request for renewal shall be submitted to:

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

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

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

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

(a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are

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

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

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

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

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

and

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

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

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

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

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

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

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

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

(a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

(b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2 and/or 326 IAC 2-3-2.

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

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

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

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

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

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

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

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

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

(a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

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

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

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

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

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

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

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

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

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

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

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

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

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

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

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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

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

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

(b) For such required testing the Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), such test reports for testing required by this permit must be received by IDEM, OAQ, not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records;

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

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

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

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

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

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

(a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants (as defined by 326 IAC 2-7-1(32)) ("Regulated pollutant which is used only for purposes of Section 19 of this rule") from the source, for purposes of Part 70 fee assessment.

The statement must be submitted to:

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

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

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

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

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

(c) If there is a reasonable possibility (as defined in 40 CFR 51.165 (a)(6)(vi)(A), 40 CFR 51.165 (a)(6)(vi)(B), 40 CFR 51.166 (r)(6)(vi)(a), and/or 40 CFR 51.166 (r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2 2 1(qq) and/or 326 IAC 2 3 1(ll)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is

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

(1) Before beginning actual construction of the "project" as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll) at an existing emissions unit, document and maintain the following records:
  (A) A description of the project.
  (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
  (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
    (i) Baseline actual emissions;
    (ii) Projected actual emissions;
    (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii)); and
    (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.

(2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and

(3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

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

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C- General Record Keeping Requirements for any "project" as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll) *at an existing emissions unit*, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C- General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

(a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

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

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

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

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

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

(a) Modifications to existing Blast Furnace identified as No.7, by a detailed reline and the addition of a fourth blast air heating stove to provide additional blast capacity, exhausting to stack 170. This modification is intended to increase production of hot metal from this furnace by 772,620 tons per year.

(b) Additional 373,155 tons per year of pulverized coal for injection into the No.7 Blast Furnace will be supplied by the existing pulverized coal injection system without any changes to the existing equipment.

(c) The usage of iron bearing self-fluxing pellets as raw material for molten metal production at No.7 Blast Furnace will increase by 1,295,275 tons per year.

(d) Increased consumption of coke at No.7 Blast Furnace by 296,686 tons per year, either from the on-site coke plant operated by Indiana Harbor Coke Company or purchased from an offsite producer.

(e) Utilization of an additional 28,082 MMSCF per year of blast furnace gas at the No.5 Boiler House to generate steam. This usage of additional blast furnace gas will likely reduce the use of natural gas at the No.5 Boiler House

(f) Any additional blast furnace gas, which cannot be utilized, will be consumed in the three velocity nozzle flare identified as stack 195 at No.7 Blast Furnace.

(g) Increased lime production at No.1 lime plant and consumption at No.2 and/or No.4 BOF shop by 50,355 tons per year. This will result in an increase of natural gas usage by 247 MMSCF per year.

(h) The increased hot metal production at No.7 Blast Furnace will be processed at the existing No.2 and/or No.4 Basic Oxygen Furnaces (BOF) shops to produce additional steel. The steel production will increase by approximately 908,965 tons per year.

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

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

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

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

Pollutant	Emissions (in tons per 12 consecutive month period with compliance demonstrated at the end of each month)
PM	1,250
NOx	3,082
Pb	5.17

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

Pursuant to SSM #089-21207-00316 and in order to make the requirements of 326 IAC 2-3-1 (s) (Major Modification) not applicable to this modification, the cumulative emissions from emissions units listed in D.0.5 of particulate matter less than 10 microns diameter (including filterable and condensable components) (PM_{10}) and sulfur dioxide (SO_2) associated with (when handling material

to or from) the No.7 Blast Furnace operation shall be less than the following limitations:

Pollutant	Emissions (in tons per 12 consecutive month period with compliance demonstrated at the end of each month)
PM_{10}	1,566
SO_2	2,375

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

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

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

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

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

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

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

2. No.5 Boiler House:
   No.5 Boiler House exhausting to stack 134, to the extent increases in the usage of blast furnace gas from No.7 Blast Furnace at this unit.

3. Pulverized Coal Injection plant:
   - (a) Coal transfer A controlled by baghouse exhausting to stack 185
   - (b) Coal storage C controlled by baghouse exhausting to stack 186
   - (c) Coal pulverizer D controlled by baghouse exhausting to stack 187
   - (d) Coal pulverizer E controlled by baghouse exhausting to stack 188
   - (e) Coal storage F controlled by baghouse exhausting to stack 189
   - (f) Coal storage G controlled by baghouse exhausting to stack 190
   - (g) Coal unloading system exhausting to stack 192

4. No.1 Lime Plant:
   - (a) Lime plant storage silo controlled by baghouse exhausting to stack 47

(b) No.1 and No.2 Lime Kiln controlled by two (2) baghouses exhausting to stack 45 and 49
(c) Lime plant fugitive control micro-pulse controlled by baghouse exhausting to stack 46
(d) Lime plant truck loadout controlled by baghouse exhausting to stack 48

5. No.2 BOF shop:
(a) No.10 Basic Oxygen Furnace controlled by scrubber exhausting to stack 147
(b) No.20 Basic Oxygen Furnace controlled by scrubber exhausting to stack 148
(c) Ladle metallurgy facility station controlled by baghouse exhausting to stack 154
(d) Secondary ventilation system for No.2 BOF shop controlled by scrubber exhausting to stack 149
(e) Charge Aisle and Hot Metal Station controlled by baghouse exhausting to stack 152
(f) Truck and ladle hopper controlled by baghouse exhausting to stack 150
(g) Flux storage batch controlled by baghouse exhausting to stack 151
(h) Gas Cleaning System
(i) No.2 BOF Roof Monitor 153
(j) No.2 BOF Caster Roof Monitor 158

6. No.4 BOF shop:
(a) No.4 BOF shop off gas controlled by scrubber exhausting to stack 38
(b) Secondary ventilation system for No.4 BOF shop controlled by a baghouse exhausting to stack 37
(c) Hot Metal Station baghouse (North) exhausting to stack 26
(d) Hot Metal Station baghouse (South) exhausting to stack 27
(e) RHOB condensers stack exhausting to stack 32
(f) RHOB material handling stack exhausting to stack 33
(g) Gas Cleaning System 4 BOF
(h) Gas Cleaning System 4 BOF RHOB
(i) Furnace additive bin loading exhausting to stack 28
(j) Torch cut exhausting to stack 31
(k) Furnace additive hopper house exhausting to stack 35
(l) No.4 BOF Roof Monitor 29

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

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

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

D.0.7 Emissions Factors and Performance Testing

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

(a) The Permittee shall use the emissions factors documented in Appendix-A of this permit in conjunction with the actual throughput of the emissions units in D.0.5 directly attributed to the operation of No.7 Blast Furnace to determine compliance with emissions limitations in conditions D.0.1, D.0.2, D.0.3 and D.0.4.

(b) Pursuant to IC 13-15-7-1, IC 13-15-7-2, 326 IC 2-1.1-9(2) and 326 IAC 2-1.1-11 the IDEM, OAQ reserves the authority to require the Permittee to conduct performance tests to verify the emissions factors in Appendix-A of this permit.

(c) After issuance of this permit, if the performance test results indicate a discrepancy between the emission factors in Appendix-A and the actual emissions rate observed during the test,

the Permittee shall inform IDEM, OAQ, Permits Branch of such variation within 90 days of the submission of performance test report to IDEM.

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

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

D.0.8 Record Keeping Requirements

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

(a) To document compliance with D.0.6, the Permittee shall keep records of molten metal produced at the No.7 Blast Furnace in terms of tons of metal per three hundred and sixty five (365) days. These records shall be kept for at least a period of 60 months.

(b) In order to document compliance with conditions D.0.1, D.0.2, D.0.3, D.0.4 and D.0.5 the Permittee shall:

(1) Maintain records of the throughput or production that is directly attributed to (when handling material to or from) the operation and throughput at No.7 Blast Furnace at the emissions units listed in D.0.5.

(2) Maintain records of the emissions on monthly basis using the emissions factors in Appendix A in conjunction with throughput or production in item (1) of this sub-condition to calculate emissions from No.7 Blast Furnace operation modification project on monthly basis.

(3) These records shall be kept for at least a period of 60 months.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.0.9 Reporting Requirements

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

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

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

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) No. 5 and 6 Blast Furnace processes, with a combined estimated maximum production rate of 2,506,000 tons per year of hot iron metal, comprised of the following facilities, process equipment and operational practices:

(1) One (1) Pulverized Coal Storage Bin with baghouse H (191), having a 400 ton storage capacity, estimated maximum throughput of 325,000 tons per year of pulverized coal, and a flow rate of 3500 acfm, exhausting through stack 191 and constructed in 1991.

(2) No. 5 Blast Furnace, installed in 1939 consisting of:

(A) One (1) Stockhouse, including coke screening.

(B) No. 5 Blast Furnace Stoves (3 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 5 Blast Furnace and exhausting combustion emissions through stack 5.

(C) No. 5 Blast Furnace with an integral blast furnace gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 5 Blast Furnace Stoves.

(D) No. 5 Blast Furnace Casthouse with casting emissions controlled by two (2) No. 5 Blast Furnace Casthouse Collection System Scrubbers having a flow rate of 40,000 acfm, exhausting through stack 1 with construction upgrades in 1986 and 1991.

(E) One (1) No. 5 Blast Furnace Casthouse Roof Monitor.

(F) Slag pots and pits for handling slag waste.

(3) No. 6 Blast Furnace, installed in 1942, consisting of:

(A) One (1) Stockhouse, including coke screening.

(B) No. 6 Blast Furnace Stoves (4 units) with an estimated maximum combined heat input rate of 293 MMBtu/hr, using natural gas and blast furnace gas as fuel, sending hot air blast to No. 6 Blast Furnace and exhausting combustion emissions through stack 6.

(C) No. 6 Blast Furnace with an integral gas cleaning system and blast furnace gas combusted at either No. 2AC station or the No. 6 Blast Furnace Stoves.

(D) No. 6 Blast Furnace Casthouse with casting emission controlled by No. 6 Blast Furnace Casthouse Collection System Scrubber having a flow rate of 40,000 acfm, exhausting through stack 2, with a construction upgrade in 1986 on this equipment.

(E) No. 6 Blast Furnace Casthouse Roof Monitor.

(F) Slag pots and pits for handling slag waste.

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

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

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

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

(a) PM10 emissions from pulverized coal storage Bin Vent Filter H (191) shall not exceed 0.003 grains per dry standard cubic foot, 0.09 pounds per hour.

(b) PM10 emissions from the stack serving No. 5 Blast Furnace Stoves (3 units) (stack 5), shall not exceed 0.016 pounds/MMBtu and 4.70 pounds per hour.

(c) PM10 emissions from the stack serving No. 6 Blast Furnace Stoves (4 units) (stack 6), shall not exceed 0.016 pounds/MMBtu and 3.64 pounds per hour.

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

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

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

D.1.3 Sulfur Dioxide (SO_2)[326 IAC 7-4.1-11]

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

(a) SO_2 emissions from the stack serving No. 5 Blast Furnace Stoves (3 units) (stack 5) shall not exceed 0.140 pounds per MMBtu and 41.02 lbs/hour.

(b) SO_2 emissions from the stack serving No. 6 Blast Furnace Stoves (4 units) (stack 6) shall not exceed 0.140 pounds per MMBtu and 41.02 lbs/hour.

Compliance Determination Requirements

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

(a) In order to comply with D.1.1 (a), the coal storage bin baghouse H (191) for PM control shall be in operation and control emissions from the Pulverized Coal Storage Bin at all times that the No. 5 and No. 6 Blast Furnaces are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.1.5 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

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

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

D.1.6 Record Keeping Requirements

(a) To document compliance with Conditions D. 1.3 and D.1.5, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No. 5 and No. 6 Blast Furnaces.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.1.3 in order to document compliance with Conditions D. 1.3 and D.1.6 (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

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

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

(1) Raw material handling and stockhouse material handling for receiving, storage and delivery of blast furnace raw material. The handling operation has an estimated maximum throughput of 7,704,971 tons of iron ore pellets per year; stored in four (4) storage bins with 8073 tons total capacity; 1,514, 604 tons of coke per year, stored in four (4) storage bins with 1314 tons total capacity; and 1,082,736 tons of flux and miscellaneous material per year, stored in six (6) storage bins with 4200 tons total capacity. Emissions are controlled by two (2) baghouses: (1) identified as 168-stockhouse pellet and flux handling baghouse, having a flow rate of 82,500 acfm and (2) identified as 172-stockhouse coke handling baghouse having a flow rate of 27, 500 acfm.

(2) Coke screening operation with emissions controlled by a baghouse, previously identified as 169, having a flow rate of 47,116 acfm and an average screening capacity of 400 tons per hour. (This equipment is not currently operating)

(3) One (1) blast furnace, identified as No. 7, constructed in 1980 with blast furnace gas processed by a gas cleaning system and equipped with three (3) flares, each with a 1.15 MMBtu per hour igniter capacity of flaring one-third of the maximum generated blast furnace gas through stack 195.

(4) No. 7 Blast Furnace Casthouse constructed in 1980 with casting emissions controlled by two (2) baghouses: identified as 166 (West baghouse) having a flow rate of 500,000 acfm; and 167 (East baghouse) having a flow rate of 300,000 acfm. Emissions from No. 7 blast furnace casthouse are also controlled by trough and runner covers and hoods over the tap holes and pugh ladle addition points.

(5) No. 7 Blast Furnace stoves (3 units) using blast furnace gas and natural gas as fuel with an estimated maximum combined heat input capacity of 953 MMBtu/ hr and emissions exhausting through stack 170. Significant Source Modification 089-16966-00316, issued on November 26, 2003 allows for a blast capacity increase and the construction of a fourth (4th) stove.

(6) One (1) Casthouse Roof Monitor 171.

(7) One (1) coke transfer tower (No.4), identified as164, installed in 1997, with a an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled by one (1) baghouse, and exhausting inside the tower.

(8) One (1) coke transfer point, identified as 169, installed in 1997, with an estimated maximum throughput of 4020 tons of dry coke per day, enclosed and controlled .

(9) Slag pits

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

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

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

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

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

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

(c) TSP emissions from the No. 7 blast furnace coke screening baghouse (169) shall not exceed 0.007 grains per dry standard cubic foot and 4.200 pounds per hour.

(d) PM10 emissions from the No. 7 blast furnace Casthouse West canopy baghouse (166) shall not exceed 0.003 grains per dry standard cubic foot and 11.22 pounds per hour.

(e) TSP emissions from the No. 7 blast furnace Casthouse East baghouse (167) shall not exceed 0.011 grains per dry standard cubic foot and 22.00 pounds per hour.

(f) PM10 emissions from the stack serving No. 7 blast furnace stove (3 units) stack (170) shall not exceed 0.0076 pounds/MMBtu and 6.32 pounds per hour.

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

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

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

D.2.3 Opacity [326 IAC 6.8-3]

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

D.2.4 Opacity

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

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

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

(a) the coke transfer tower (Stack ID 164) shall not exceed 0.075 pounds per hour, and

(b) the coke transfer point (Stack ID 169) shall not exceed 0.092 pounds per hour.

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

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

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

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

(c) Pursuant to SSM #089-21207-00316 and 326 IAC 2-2-3 (PSD BACT), the Permittee shall comply with the following for No. 7 Blast Furnace Stoves (Stack 170):

(1) The CO emissions from the No. 7 blast furnace stoves (stack 170) shall not exceed

3,968 lbs/hr based on a rolling 30-day average.

(2) No later than January 31, 2009, the Permittee shall install a continuous emissions monitoring system (CEMS) with stack 170 to monitor the CO emissions from No. 7 blast furnace stoves.

(3) The Permittee shall utilize a computerized monitoring system for the No. 7 blast furnace stoves to assist operational control and energy conservation.

(4) The Permittee shall complete the stove rebuild project (rebuilding the existing stoves No. 1 through 3) no later than March 30, 2011.

(5) After the stove rebuild project is complete, the Permittee shall submit a permit application with PSD BACT analysis to re-evaluate the PSD BACT requirements for the No. 7 blast furnace stoves based on monitoring data from the CO CEMS associated with Stack 170.

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

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

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

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

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

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

(a) The following facilities must be permanently shutdown:

(1) the No. 4 BOF Teeming Facility,

(2) the foundry operations in the Mold Foundry Building,

(3) the No. 3AC Station Boiler 305,

(4) the 76 inch hot strip mill,

(5) the 100 inch plate mill,

(6) the No. 4 slabber mill (soaking pits 1-45), and the No. 4 slabber scarfer.

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

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

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

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

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

Pursuant to 326 IAC 7-4.1-11(a), the SO_2 emissions from these units shall not exceed the following:

(a) SO_2 emissions from the No. 7 blast furnace stoves stack (170) shall not exceed 0.195 pounds per MMBtu and 162 lbs/hour.

(b) SO_2 emissions from the No. 7 blast furnace canopy shall not exceed 0.220 lbs/ton and 50.400 lbs/hour.

(c) SO_2 emissions from the No. 7 blast furnace casthouse baghouse shall not exceed 0.220 lbs/ton and 50.400 lbs/hour.

Compliance Determination Requirements

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

(a) Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform PM10 testing on the No. 7 blast furnace (West baghouse) (166) utilizing a testing method approved by the Commissioner to show compliance with conditions D.2.1, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 and is approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration.

(b) In order to demonstrate compliance with Conditions D.2.6(a) and D.2.6(b), within thirty (30) months from the date of the last valid compliance test, the Permittee shall perform CO testing on Stacks 166 and 167 for Casthouse Baghouses for No. 7 Blast Furnace utilizing a testing method approved by the Commissioner, in accordance with Section C - Performance Testing. These tests shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

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

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

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

(a) The No. 7 blast furnace stockhouse pellet baghouse (168) for PM control shall be in operation at all times that the stockhouse pellet process is in operation.

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

(c) The No. 7 blast furnace casthouse west baghouse (166) for PM control shall be in operation at all times that the No. 7 blast furnace is casting under normal damper operating

configurations. When the west baghouse is inoperable, casting may continue using cross-over control configuration routing control of both canopy and #3 and #4 taphole emissions to the east baghouse (167).

(d) The No. 7 blast furnace casthouse east baghouse (167) for PM control shall be in operation at all times that the No. 7 blast furnace casthouse is casting under normal damper operating configurations. When the east baghouse is inoperable, casting may continue using cross-over control configuration routing control of both canopy and #1 and #2 taphole emissions to the west baghouse (166).

(e) Pursuant to construction permit 089-9033-00316, issued on February 26, 1998, the baghouses for the coke handling equipment (Stack IDs 164 and 169) shall be in operation when dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when coke material moisture content acts as an alternative dust suppression.

(f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

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

D.2.17 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

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

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

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2-3 (PSD BACT), the Permittee is required to calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring CO emissions rate from the No. 7 Blast Furnace stack (stack 170) in accordance with 326 IAC 3-5 and Condition D.2.19 to demonstrate compliance with Condition D.2.6(c)(1).

(b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

(c) The 30-day rolling average calculation shall be conducted as follows:

(i) The average CO emissions, for each hour, shall be recorded by completing a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period anytime the monitor is in service and is not malfunctioning or being calibrated. For any hour in which required maintenance or quality assurance activities occur a valid hour of data shall consist of valid CEM data from no less than two (2) 15-minute periods within the hour.

(ii) Daily average CO emissions will be calculated by taking the summation of the quality assured hourly average, obtained by Condition D.2.18(c)(i), and dividing by the number of hours in which there was a quality assured hourly average, to determine the average CO emissions for a particular day.

(iii) The 30-day rolling average will be calculated each day by summing the daily average CO emission rates for the previous 30 days and dividing by 30.

(d) Pursuant to 326 IAC 3-5-4(a), if revisions are made to the continuous monitoring standard operating procedures (SOP), the Permittee shall submit updates to the department biennially.

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

(a) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

(b) Within 180 days of date of installation of CO CEM system, the Permittee shall develop and implement a CO CEM operation and maintenance plan (O&M Plan) that includes an alternate procedure for quantifying CO emissions any time the CEMs is down for four (4) or more hours. The backup system will include a calibrated online process control CO analyzer on a representative portion of the stack gas flow. The primary CEMS shall be returned to operation as soon as practicable.

(c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 3-5.

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

D.2.20 Record Keeping Requirements

(a) To document compliance with Condition D.2.6(c)(1), the Permittee shall maintain the CO CEMS data for the emissions from stack 170 for No. 7 Blast Furnace Stoves in accordance with D.2.18(c).

(b) To document compliance with Conditions D.2.12 and D.2.17, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No. 7 Blast Furnace.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(c) To document compliance with D.2.7, the Permittee shall keep records of molten metal produced at the No.7 Blast Furnace in terms of tons of metal per three hundred and sixty five (365) days. These records shall be kept for at least a period of 60 months.

(d) To document compliance with D.2.8, the Permittee shall keep records of slag produced at the No.7 Blast Furnace and processed at the slag pits in terms of tons of slag per month. These records shall be kept for at least a period of 60 months.

(e) In order to document compliance with condition D.2.16, the Permittee shall maintain records of the occurrence of alarm events at the flare and response steps taken to correct the same.

(f) To document compliance with Conditions D.2.18 and D.2.19, the Permittee shall maintain records, including raw data of all monitoring data and supporting information, for a minimum of five (5) years from the date described in 326 IAC 3-5-7(a). The records shall include the information described in 326 IAC 3-5-7(b).

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.21 Reporting Requirements

(a) A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.2.12 and D.2.17. The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A semi-annual summary of the information to document compliance with Condition D.2.8 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.3 FACILITY OPERATION CONDITIONS

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

(c) One (1) Sinter Plant, constructed in 1959, with a an estimated maximum raw material usage of 1.4 million tons per year comprised of the following facilities, process equipment, and operational practices:

(1) Raw material handling and blend site.

(2) One (1) sinter plant windbox, controlled by the main baghouse with emissions exhausting through stack 7.

(3) One (1) sinter plant discharge end, controlled by the discharge end baghouse, and one (1) cooler station, partially controlled by the discharge end baghouse, with emissions exhausting through stack 8, installed in 1959.

(4) One (1) sinter plant upper screening station, with conveyors, screen hoods, and duct routed to and controlled by the upper screening station baghouse with emissions exhausting through stack 11. This equipment was constructed in 1998.

(5) Sinter loading, unloading, and transfer operations.

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

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

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

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

(a) TSP emissions from the Windbox baghouse (7) shall not exceed 0.007 grains per dry standard cubic foot and 17.00 pounds per hour.

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

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

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

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

D.3.3 Lake County Sulfur Dioxide (SO_2) Emission Limitations [326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a)(13), the SO_2 emissions from the sinter plant windbox (7) shall not exceed 180.000 pounds per hour.

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

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

(a) During the period May 1 through September 30, the total VOC emissions (the seasonal cap) shall not exceed the VOC emission limit of 150,973 pounds of VOC.

(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 1162 pounds of VOC emissions.

(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 the VOC emission limit of 987 lbs VOC/day.

(d) 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.

(e) Pursuant to 326 IAC 8-13-4(b)(8) and an Ozone Action Plan, the Permittee shall do the following:

(1) Use a VOC continuous emissions monitoring system consistent with the continuous emissions monitoring requirements specified in 326 IAC 8-13-8 to ensure compliance with the applicable emission limit and as the approved alternate test method for the sinter plant VOC limit set forth in the Iron and Steel MACT.

(2) Measure sinter at the P2 scale.

(3) Control mill scale oil and grease content before its removal from scale pits for use at the sinter plant. Control will be achieved by removing a portion of the oil and grease at the scale pits to help achieve compliance with the emission limits in 326 IAC 8-13-3. Removal may consist of skimming, vacuuming or other methods capable of reducing the amount of oil and grease becoming entrained on scale.

(4) Maintain the removal efficiency that is currently estimated at 90% at this value. ArcelorMittal USA, Inc. will continue operations to prevent “blinding” of the sinter plant windbox baghouse bags. The continuous emissions monitoring system will provide feedback on VOC emissions, if oil and grease content needs to be controlled. This procedure reflects current operation only and is subject to change while still meeting the emission limits in 326 IAC 8-13-3.

(5) Provide timely VOC emissions data to sinter plant operators during production. This information will be used to reduce the likelihood of an exceedance. In the event VOC emissions approach or exceed limits, sinter production will be reduced, burden characteristic will be changed, sinter process equipment operations will be modified or some other activity determined to be effective and that helps prevent an exceedance or reduces the length of exceedance.

(6) To predict high ozone days: the Permittee is a participant in IDEM’s Partners for Clean Air Program and receives notification of Ozone Action Days from IDEM - OAQ. The Permittee will initiate the ozone action plan. A high ozone level day shall be predicted by the Permittee by using notification from IDEM, OAQ of an ozone action day.

Compliance Determination Requirements

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

Within thirty (30) months of issuance of this permit, or the date of the last valid compliance test or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform SO2 testing on the sinter plant windbox exhaust (S2A) using methods as approved by the Commissioner, in order to demonstrate compliance with conditions D.3.1 and D.3.3. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 and is approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this

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

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

(a) The main and discharge end baghouses for particulate control shall be in operation at all times when the windbox, crusher, and cooler are in operation. During startup situations the windbox exhaust will not be initially directed to the main stack baghouse to prevent condensation damage to the baghouse. The exhaust will be redirected to the baghouse no later than the time at which the exhaust temperature reaches 160 degrees F.

(b) Pursuant to Ispat's No. 3 Sinter Plant Fugitive Control Project which received an Exempt Construction and Operation Status Letter, CP 089-9176-00316 issued on March 30, 1998, the upper screening station baghouse is only required to operate when required by product fugitives. Therefore, operations may continue using alternative dust suppression operating practices, such as water addition to the sinter bed, during periods of baghouse inoperability, (including but not limited to maintenance, bag failure or other conditions).

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

(a) Pursuant to 326 IAC 8-13-8(a)(1) and (2), the Permittee shall demonstrate compliance with the emission limits in D.3.4 by continuously monitoring VOC emissions and

(b) comply with the CEM maintenance, operating procedures , quality assurance procedures, and performance specifications in 326 IAC 3-5.

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

D.3.8 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

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

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

D.3.9 Record Keeping Requirements

(a) To document compliance with Conditions D.3.3 and D.3.8, the Permittee shall maintain the following records:

(1) Records of the total fuel usage for each type of fuel used, each day at the Sinter Windbox.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

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

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

(1) For the period May 1 through September 30, maintain the following records:

(A) The VOC emitted each day.

(B) The cumulative total of VOC emitted.

(C) The sinter produced each operating day.

(2) Within thirty (30) days of the exceedance of an applicable emission limit in 326 IAC 8-13-3, submit a report containing the following:

(A) The name and location of the source.

(B) The nature of the exceedance.

(C) The date of the occurrence.

(D) The cause of the exceedance, such as, but not limited to, production rates or characteristics of the sinter burden.

(E) The corrective action taken according to the corrective action plan in 326 IAC 8-13-4(b)(5).

(b) Submit the CEM certification reports according to the procedures and schedule in 326 IAC 3-5.

D.3.11 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MMBtu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.3.3 and D.3.9 (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.4 FACILITY OPERATION CONDITIONS

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

(d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:

(1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).

(2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.

(3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.

(4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187.

(5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.

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

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

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

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

(a) System A-conveyor transfer with baghouse control (185) shall not exceed 0.003 grains per dry standard cubic foot, 0.17 pounds per hour

(b) System C-conveyors and raw coal bins with baghouse control (186) shall not exceed 0.003 grains per dry standard cubic foot, 0.23 pounds per hour

(c) System D-coal pulverizer with cyclone and baghouse control (187) shall not exceed 0.0015 grains per dry standard cubic foot, 0.93 pounds per hour

(d) System E-coal pulverizer with cyclone and baghouse control (188) shall not exceed 0.0015 grains per dry standard cubic foot, 0.93 pounds per hour

(e) System F-No. 7 blast furnace coal storage bin No. 1 with baghouse control (189) shall not exceed 0.003 grains per dry standard cubic foot, 0.09 pounds per hour

(f) System G-No. 7 blast furnace coal storage bin No. 2 with baghouse control (190) shall not exceed 0.003 grains per dry standard cubic foot, 0.09 pounds per hour

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

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

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

Compliance Determination Requirements

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

(a) In order to comply with D.4.1, the baghouses for PM_{10} control shall be in operation and control the PCI Systems A and C. When dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when coal material moisture content acts as an alternative dust suppression. Daily visible emission notations shall be conducted at transfer points when the baghouses are not operating.

(b) Pursuant to CP 089-2016-00316 issued on August 22, 1991, the equipment listed in the start of this section shall be operated and maintained in accordance with the manufacturer's specifications.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

(a) Visible emission notations of the Coal pulverizer D baghouse (187) and Coal pulverizer E baghouse (188) exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) In the case of batch or discontinuous operations, readings shall be taken during normal operations.

(c) If visible emissions are observed, and corrective actions cannot be initiated within one hour of the observation, the Permittee shall record the reason that corrective action cannot be taken within the hour and an employee certified to perform an EPA Method 9 evaluation shall determine whether opacity exceeds twenty percent (20%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4; and:

(1) If the opacity exceeds twenty percent (20%) per Method 9, the Permittee shall shut down the associated process as soon as practicable, unless either: (1) the Permittee is able to bring opacity to under twenty percent (20%) per Method 9 within a reasonable period of time; or (2) the situation qualifies as an "emergency" under 326 IAC 2-7-1(12). If the Permittee continues to operate the associated process after determining that opacity exceeds twenty percent (20%) per Method 9, then the Permittee shall perform an additional Method 9 reading once every four daylight hours until opacity is returned to under twenty percent (20%). Once the Permittee is able to return opacity to under twenty percent (20%) per this subsection (d), then Permittee shall perform response actions according to subsection (c)(1), (2) and/or (3), as appropriate.

(2) If opacity does not exceed twenty percent (20%) per the Method 9 observation referenced above, inspection of the baghouse shall be scheduled at the next available process downtime. Repairs shall be scheduled as expeditiously as

practical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee must notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

(d) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedences. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

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

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

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

D.4.6 Record Keeping Requirements

(a) In order to document compliance with Condition D.4.4, the Permittee shall maintain records of once per day visible emission notations of the Coal pulverizer D baghouse (187) and Coal pulverizer E baghouse (188) exhausts.

(b) In order to document compliance with Condition D.4.5, the Permittee shall maintain the records once per day of the pressure drop across the baghouse during normal operation.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.5 FACILITY OPERATION CONDITIONS

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

(e) The No. 2 Basic Oxygen Furnace (BOF) Shop, comprised of the following facilities, process equipment, and operational practices:

(1) Raw material handling, ladle additive truck hopper loading system having an estimated maximum throughput of 328,000 tons per year of alloy and flux. Emissions from the truck hopper controlled by a baghouse, which has a flow rate of 75,000-acfm exhausting through stack 150. Emissions from the alloy and flux storage and handling system are controlled by a baghouse, which has a flow rate of 50,000-acfm, exhausting through stack 151. Both baghouses were constructed in 1974.

(2) One (1) Hot metal station containing reladling, desulfurization, and slag skimming operations having an estimated maximum capacity of 4,029,600 tons of hot metal per year. Captured emissions from the hot metal station and charging aisle are controlled by a baghouse having a flow rate of 360,000-acfm, exhausting through stack 152. Original construction was 1974 and an upgrade was completed in August 1994 as part of a consent decree.

(3) Two (2) BOFs, identified as No. 10 and No. 20, and operations including charging, oxygen blowing, tapping, and alloy addition with a total estimated maximum capacity of 4,543,600 tons of hot metal and scrap per year. Captured emissions controlled by two (2) off-gas scrubber systems with flares having a flow rate of 1,500,000-acfm each, exhausting through flare stacks 147 and 148. Construction commenced on this equipment in 1970. Uncaptured emissions exhausting through roof monitor 153 and charging and miscellaneous furnace emissions exhausting through a secondary ventilation scrubber having a flow rate of 194,000-acfm, exhausting through stack 149. The Off-gas scrubber systems were constructed in 1974 and the Secondary Vent scrubber was replaced in 2003.

(4) One (1) ladle metallurgy facility (LMF) station consisting of alloy addition, electric arc reheat, slag skimming, and raw material handling specifically for the metallurgy station with an estimated maximum throughput of 4,029,600 tons per year of steel. Captured emissions are controlled by a baghouse having a flow rate of 135,000-acfm, exhausting through stack 154. This equipment was constructed in 1985.

(5) One (1) Continuous casting operations consisting of slab casters, and three (3) torch cutoff machines. Leaded emissions from the casters exhaust through the caster fume baghouse, which has a flow rate of 171,000 acfm, exhausting through stack 159. Steam from the water spray cooling exhausts through three (3) vents along the caster, identified as stacks 160, 161, and 162. Fugitive emissions from the casting operations exhaust through a roof monitor, identified as 158. This equipment was constructed in 1985. (Bloom caster at this site is permanently shutdown)

(6) A tundish dump and repair station with leaded emissions controlled by a baghouse, which has a flow rate of 50,000 acfm, exhausting through stack 156. This equipment was constructed in 1989.

(7) Miscellaneous natural gas combustion used for ladle preheating, exhausting through stack 157, and tundish and ladle shroud preheating and drying, exhausting through No.2 BOF Shop Roof Monitors 155.

(8) Slag skimming into slag pots.

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

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

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

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

(a) TSP emissions from the No. 2 BOF truck and ladle hopper baghouse (150) shall not exceed 0.0052 grains per dry standard cubic foot and 0.800 pounds per hour.

(b) TSP emissions from the No. 2 BOF alloy and flux storage baghouse (151) shall not exceed 0.0052 grains per dry standard cubic foot and 0.530 pounds per hour.

(c) TSP emissions from the No. 2 BOF charging aisle reladling and desulfurization baghouse (152) shall not exceed 0.011 grains per dry standard cubic foot and 28.30 pounds per hour.

(d) TSP emissions from the No. 2 BOF No. 10 off-gas scrubber stack (147) shall not exceed 0.058 pounds per ton and 16.00 pounds per hour.

(e) TSP emissions from the No. 2 BOF No. 20 off-gas scrubber stack (148) shall not exceed 0.058 pounds per ton and 16.00 pounds per hour.

(f) TSP emissions from the No. 2 BOF secondary ventilation system scrubber (149) shall not exceed 0.015 grains per dry standard cubic foot and 12.00 pounds per hour.

(g) TSP emissions from the No. 2 BOF ladle metallurgical station baghouse (154) shall not exceed 0.0052 grains per dry standard cubic foot and 2.00 pounds per hour.

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

D.5.2 Opacity [326 IAC 6.8-3]

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

(a) The opacity for the No. 2 BOF truck and ladle hopper baghouse (150) shall not exceed five percent (5%), three (3) minute average.

(b) The opacity for the No. 2 BOF alloy and flux storage baghouse (151) shall not exceed five percent (5%), three (3) minute average.

(c) The opacity for the No. 2 BOF charging aisle reladling and desulfurization baghouse (152) shall not exceed five percent (5%), three (3) minute average.

(d) The opacity for the No. 2 BOF No. 10 off-gas scrubber stack (147) shall not exceed twenty percent (20%), six (6) minute average.

(e) The opacity for the No. 2 BOF No. 20 off-gas scrubber stack (148) shall not exceed twenty percent (20%), six (6) minute average.

(f) The opacity for the No. 2 BOF roof monitor (153) shall not exceed twenty percent (20%), three (3) minute average.

(g) The opacity for the No. 2 BOF secondary ventilation system scrubber (149) shall not exceed twenty percent (20%), six (6) minute average.

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

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

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

D.5.4 Sulfur Dioxide (SO_2)[326 IAC 7-4.1-11]

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

(a) SO_2 emissions from the stack serving No. 2 BOF secondary vent (149) shall not exceed 0.014 lbs/ton and 6.440 lbs/hour.

(b) SO_2 emissions from the stack serving No. 2 BOF charge aisle and HMS baghouse (152) shall not exceed 0.151 lbs/ton and 69.460 lbs/hour.

(c) SO_2 emissions from the stack serving No. 2 BOF ladle metal baghouse (154) shall not exceed 0.0.25 lbs/ton and 11.500 lbs/hour.

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

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

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

(a) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, 326 IAC 2-3 and 326 IAC 2-2, the 2A Blooming Mill and 21 inch Bar Mill shall be shutdown permanently before the restart of the No.7 Blast Furnace operation after the completion of the reline project in 2003. In addition within 180 days of restart of the No.7 Blast Furnace operation after the reline project in 2003, these emissions units shall be physically disconnected and permanently removed from service.

(b) On and after the date of issuance of this permit, the Permittee shall request the IDEM, OAQ to remove the 2A Blooming Mill and 21 inch Bar Mill and all the associated equipment permanently from the emissions inventory maintained by the State.

(c) This condition supercedes all conditions in previous permits that allow the operation of the 2A Blooming Mill and 21 inch Bar Mill and its associated equipment.

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

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

Compliance Determination Requirements

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

Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform TSP and opacity testing on the No.2 BOF No.10 and No. 20 furnaces (stacks 147 and 148) utilizing a testing method approved by the Commissioner to show compliance with conditions D.5.1 and 5.2, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-3-1 and is approved by the

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

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

(a) The No. 2 BOF truck and ladle hopper baghouse (150) for PM control shall be in operation at all times that any alloy unloading or handling is in process in the related controlled areas. When the baghouse is not operating, operations may continue using the following alternative procedures.

(i) Lime shall not be off loaded using rear dumping trucks. Bottom off loading trailers shall be used.

(b) The No. 2 BOF alloy and flux storage baghouse (151) for PM control shall be in operation at all times that any alloy unloading or handling is in process in the related controlled areas.

(c) The No. 2 BOF charging aisle reladling and desulfurization baghouse (152) for PM control shall be in operation at all times that the Hot metal station is in operation.

(d) The No. 2 BOF secondary ventilation system scrubber (149) for PM control shall be in operation at all times that either the No. 10 or No. 20 furnace is operating under normal conditions. When the No. 10 or No. 20 furnace is operating and the secondary ventilation scrubber is not operating, operations may continue using the following alternative BOF charging procedures.

(1) The charging aisle emission control system shall be in operation.

(2) Each hot metal charge shall be greater than 120 seconds in duration.

(e) The No. 2 BOF ladle metallurgical station baghouse (154) for PM control shall be in operation at all times that the ladle metallurgy facility station is in operation.

(f) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

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

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

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

D.5.12 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

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

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

D.5.13 Record Keeping Requirements

(a) To document compliance with Conditions D.5.4 and D.5.12, the Permittee shall maintain the following records:

(1) Records of the total fuel usage for each type of fuel used, each day at the No. 2 BOF.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.14 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.5.4, in order to document compliance with Conditions D. 5.4 and D.5.13(a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.6 FACILITY OPERATION CONDITIONS

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

(f) No.4 Basic Oxygen Furnace (BOF) comprised of the following facilities, process equipment, and operational practices:

(1) Flux, alloy and waste oxide briquettes (WOB) unloading, hopper house and storage/handling facility.

(2) Scrap metal unloading/storage (scrap yard) and scrap metal charging box.

(3) Two (2) Hot metal transfer and desulfurization operations having an estimated maximum capacity of 4,222,320 tons of hot metal per year with captured emissions controlled by two (2) baghouses having flow rates of 190,000 and 220,000 acfm, exhausting through stacks 26 and 27. This equipment was constructed in 1977.

(4) Two (2) BOFs, identified as No. 50 and No. 60 and operations including charging, blowing, tapping, flux and alloy additions, and slag skimming with a total estimated maximum capacity of 5,676,366 tons of hot metal and scrap per year with uncaptured emissions exhausting through a roof monitor (stack 29), and captured emissions controlled by a four (4) off-gas scrubber system, exhausting through stack 38. This equipment was constructed in 1966 and modernized in 2007. Charging, tapping, and miscellaneous furnace emissions are controlled by a secondary ventilation baghouse having a flow rate of 600,000 acfm, exhausting through stack 37. This equipment was constructed in 1977 and modified in 1996.

(5) Raw material handling system for the RHOB facility, including hopper house, alloy and flux storage bins having an estimated maximum throughput of 4,700,000 tons per year and dust emissions controlled by a baghouse having a flow rate of 48,100 acfm and exhausting through stack 33.

(6) One (1) RHOB vacuum degasser with natural gas-fired flare for exhaust gas control with an estimated maximum throughput of 4,686,600 tons/year of steel, exhausting through stack 32. This equipment was constructed in 1987.

(7) Ladle and tundish preheaters (stack 36).

(8) Two (2) argon stirring stations and one (1) continuous caster with tundish, caster mold exhausting through one (1) mold fume baghouse (stack 214) for housekeeping purposes only, and casting machine with cutoff, with steam vents exhausting through stacks 24 and 25.

(9) Torch cutoff exhausting into the building (stack 31).

(10) Maintenance and miscellaneous operations associated with the BOF.

(11) Furnace Additives Transfer House Baghouses, exhausting inside the buildings (stacks 28 and 35).

(12) Slag dumping.

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

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

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

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

(a) TSP emissions from the No. 4 BOF hot metal transfer and desulfurization baghouses stack (26 and 27) shall not exceed 0.0052 grains per dry standard cubic foot and 8.26 pounds per hour

(b) TSP emissions from the No. 4 BOF shop off-gas scrubber stack (38) shall not exceed 0.187 pounds per ton and 100.00 pounds per hour.

(c) TSP emissions from the No. 4 BOF shop secondary ventilation system baghouse (37) shall not exceed 0.006 grains per dry standard cubic foot and 22.30 pounds per hour.

(d) TSP emissions from the No. 4 BOF shop vacuum degassing baghouse (33) shall not exceed 0.01 grains per dry standard cubic foot and 4.280 pounds per hour.

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

D.6.2 Opacity [326 IAC 6.8-3]

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

(a) Opacity from the No. 4 BOF hot metal transfer and desulfurization baghouses (26 and 27) shall not exceed five percent (5%), three (3) minute average.

(b) Opacity from the No. 4 BOF shop roof monitor (29) shall not exceed twenty percent (20%), three (3) minute average.

(c) Opacity from the No. 4 BOF shop off-gas scrubber (38) shall not exceed twenty percent (20%), six (6) minute average.

(d) Opacity from the No. 4 BOF shop secondary ventilation system baghouse (37) shall not exceed five percent (5%), three (3) minute average.

(e) Opacity from the No. 4 BOF shop vacuum degassing material handling baghouse (33) shall not exceed five percent (5%), three (3) minute average.

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

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

D.6.4 Sulfur Dioxide (SO_2)[326 IAC 7-4.1-11]

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

(a) SO_2 emissions from the stack serving No. 4 BOF HMS baghouse S and N (26 and 27) shall not exceed 0.151 lbs/ton and 36.391 lbs/hour.

(b) SO_2 emissions from the stack serving No. 4 BOF secondary vent stack (37) shall not exceed 0.001 lbs/ton and 0.535 lbs/hour.

Compliance Determination Requirements

D.6.5 Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

Within thirty (30) months of issuance of this permit, or 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 TSP and opacity testing on the No. 4 BOF (stack 38) utilizing a testing method approved by the Commissioner to show compliance with conditions D.6.3 and D.6.4, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 and as approved by the Commissioner. This test shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.6.6 Particulate Control [326 IAC 2-7-6(6)]

(a) The hot metal transfer and desulfurization operation baghouses (26 and 27) for PM control shall be in operation at all times that any of the respective processes are in operation.

(b) The BOF and process off-gas scrubber system (38) and secondary ventilation baghouse (37) shall be in operation at all times that either the No. 50 or N0. 60 furnaces are operating under normal conditions.

(c) Raw material handling for RHOB facility baghouse (33) shall be in operation at all times that any of the processes are in operation.

(d) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.6.7 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D.6.6, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

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

D.6.8 Record Keeping Requirements

(a) To document compliance with Conditions D.6.4 and D.6.7, the Permittee shall maintain the following records:

(1) Records of the total fuel usage for each type of fuel used, each day at the No. 4 BOF.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.9 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.6.4, in order to document compliance with Conditions D.6.4 and D.6.8 (d). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being

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

SECTION D.7 FACILITY OPERATION CONDITIONS

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

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

(1) Limestone unloading, storage and screening area.

(2) Two (2) Limestone preheaters, two (2) rotary kilns with an estimated maximum heat input rate of 284 MMBtu/hr fueled by natural gas or residual fuel oil, with exhaust from kilns routed back to preheaters and then to a set of multiclones. The remaining emissions from the kilns and preheaters are controlled by two (2) baghouses ("213-1" & "213-2") exhausting through stacks 45 and 49.

(3) Dust fines are sent to two dust bins, with emissions controlled by baghouses ("217-1" & "217-2") and exhausting through stack 46.

(4) Ten (10) storage silos receive an estimated maximum of 569,400 tons per year of finished lime, with fines controlled by lime handling baghouses ("413") and exhausting through stack 47.

(5) Fugitive control project including loadout spout on rejection bin controlled by existing kiln baghouse, preheater area enclosure around two (2) kiln feed hood/ ram loadout dribbles, preheater area loading spouts for truck loading with displaced air controlled by existing kiln baghouse and ten (10) loading spouts at the truck loadout area with exhaust controlled by loadout baghouse ("408") and exhausting through stack 48. Lime product handling emissions from transfer points between both sides of lime cooler rotary valves and lime product/reject handling belts inside the firing building are controlled by a baghouse ("420") exhausting through stack 50. This equipment was upgraded in 1997.

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

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

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

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

(a) Combined PM_{10} emissions from the No.1 and No. 2 Kiln baghouses stacks (45) and (49) shall not exceed 0.110 pounds per ton and 7.149 pounds per hour

(b) PM10 emissions from the Storage Silo baghouse (47) shall not exceed 0.085 pounds per ton and 5.530 pounds per hour

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

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

Pursuant to 326 IAC 7-4.1-11(a), the allowable sulfur dioxide (SO_2) emission rate from the No. 1 and No. 2 Kiln baghouses (45 & 49) shall not exceed 0.46 lb/MMBtu and 32.08 lbs/hour.

Compliance Determination Requirements

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

(a) The No.1 and No. 2 Kiln baghouses (45), (49), Storage Silo baghouse (47), micro-pulse baghouse (46) and Truck loadout baghouse (48) for PM control shall be in operation and control emissions from the No. 1 Lime Plant operations at all times that the No. 1 Lime Plant is in operation and associated equipment is also in operation. Lime kiln operation begins when stone is charged to the kiln.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

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

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

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

(a) For a single compartment baghouses (217-1, 217-2 exhausting to stacks 46-1 and 46-2) controlling emissions from the dust bins, in the event that bag failure is observed, the feed to the dust bin controlled by the failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouses (408 exhausting to stack 48) controlling emissions from the truck loadout only from the ten silos, in the event that bag failure is observed, the feed controlled by the failed unit shall be shut down immediately during truck loadout until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

(d) For a single compartment baghouses (420 exhausting to stack 47) controlling fugitives from

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

D.7.6 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

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

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

D.7.7 Record Keeping Requirements

(a) To document compliance with Condition D.7.4, the Permittee shall maintain the records of the pressure drop across the baghouses once per day during normal operation.

(b) To document compliance with Conditions D.7.4 and D.7.6, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No.1 and No. 2 Kilns.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.8 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MMBtu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.7.4 in order to document compliance with Conditions D.7.4 and D.7.7(c). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.8 FACILITY OPERATION CONDITIONS

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

(h) No. 1 Electric Arc Furnace comprised of the following facilities, process equipment, and operational practices:

(1) Bulk alloy handling: Raw material unloading, piling, and transporting of scrap metal, fluxes, and alloys.

(2) Raw material charging to the electric arc furnace.

(3) One (1) electric arc furnace with eccentric bottom tapping (EBT), having an estimated maximum annual capacity of 975,000 tons with emissions controlled by a baghouse having a flow rate of 500,000 acfm exhausting through baghouse roof monitor (141) commencing operation in 1970 and upgraded in 1996.

(4) One (1) ladle metallurgical facility (LMF) station constructed in 1989 with a maximum annual capacity of 975,900 tons with emissions controlled by a baghouse having a flow rate of 40,000 acfm exhausting through stack 143.

(5) Five (5) natural gas ladle preheaters constructed in 1990, each has one (1) or two (2) burners with a 15 MMBtu per hour combined maximum heat input and emissions uncontrolled exhausting through stack 140.

(6) One (1) continuous casting tundish and one (1) continuous casting mold operations controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 137.

(7) Cooling operation exhausting through stack 145.

(8) Slag handling operations.

(9) EAF Shop Roof Monitor (stack 142).

(10) One (1) leaded steel torch cutoff operation controlled by a baghouse during leaded steel production having a flow rate of 70,000 acfm and exhausting through stack 138.

(11) One (1) leaded steel LMF ladle dump and repair station controlled by a baghouse during breakout and removal of lead-contaminated refractory materials having a flow rate of 100,000 acfm and exhausting through stack 136.

(i) Direct Reduced Iron (DRI) storage and conveying system constructed in 2001, comprised of the following facilities, process equipment, and operational practices:

(1) One (1) enclosed truck/trailer unloading area identified as 213 with a maximum throughput of 400,000 tons per year of DRI.

(2) A DRI conveyor system consisting of:

(A) One (1) 20,000 cu. ft. capacity enclosed DRI storage silo with excess air vented through the roof and then through one of the bin vents.
(B) One (1) horizontal trough belt stocking conveyor.
(C) Multiple Delivery Conveyors.

(3) Emission control system for (1) and (2) to remove particulate matter consisting of:

(A) Bin Vent Filter No. 1 (210)
(B) Bin Vent Filter No. 2 (211)
(C) Bin Vent Filter No. 3 (212)

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

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

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

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

(a) PM10 emissions from the electric arc furnace shop ladle metallurgical station baghouse (143) shall not exceed 0.01 grains per dry standard cubic foot and 0.820 pounds per hour.

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

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

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

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

D.8.3 Opacity [326 IAC 6.8-3]

Pursuant to326 IAC 6.8-3, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The opacity from the electric arc furnace operations shall be limited as follows:

(a) Opacity from the electric arc furnace direct shell evacuation system baghouse (141) shall not exceed five percent (5%), six (6) minute average.

(b) Opacity from the electric arc furnace shop roof monitor (142) shall not exceed twenty percent (20%), six (6) minute average.

(c) Opacity from the electric arc furnace shop ladle metallurgical station baghouse (143) shall not exceed five percent (5%), six (6) minute average.

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

Pursuant to Construction Permit 089-3630-00316 issued March 20, 1995 and SSM 089-20235-00316 issued July 11, 2005, the sulfur dioxide (SO_2) emissions from the No. 1 electric arc furnace (EAF) and ladle metallurgy facility (LMF) shall be limited as follows:

(a) SO_2 emissions from the EAF shall be less than 336.7 tons per 12 consecutive months with compliance determined at the end of each month, based on the total tons of each series steel produced times the pounds of SO_2 per ton of steel (pounds of SO_2 divided by tons of steel);

(b) The EAF pounds of SO_2 divided by tons of steel for calculation purposes shall be: 0.643 pounds of SO_2 per ton of steel for non-sulfur bearing heats, 1.091pounds of SO_2 per ton of steel for 1100 series steel, and 2.312 pounds of SO_2 per ton of steel for 1200 series steel, and,

(c) The amount of molten steel to be processed in the LMF (ss-2) shall not exceed 792,077 tons per year and SO_2 shall not exceed 0.107 pounds per ton.

The above limits will maintain emissions below 326 IAC 2-2 (Prevention of Significant

Deterioration) and 326 IAC 2-3 (Emission Offset) level requirements.

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

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

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

Pursuant to 326 IAC 7-4.1-11(a), the sulfur dioxide (SO_2) emissions from the EAF shop ladle metal baghouse (143) shall not exceed 0.125 lbs/ton and 13.90 lbs/hour.

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

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

(a) the five ladle preheaters shall be fired by natural gas and limited to firing 130.9 million cubic feet per year;

(b) combined nitrogen oxide emissions shall not exceed 37.50 pounds per hour, and 42.65 tons per year;

(c) carbon monoxide emissions shall not exceed 1.15 pounds per hour and 1.31 tons per year.

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

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

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

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

(a) Pursuant to Construction Permit (45) 1856 issued October 17, 1990, that prior to the start of operation of the five natural gas ladle preheaters, the existing three cold combustion type horizontal ladle preheaters at the No. 1 Electric Furnace shop will be removed from operation.

(b) Pursuant to Construction Permit 089-9033-00316 issued on February 26, 1998, the No. 80 furnace at the No. 1 Electric Arc Furnace Shop and the No. 2AC boiler 207-10 shall be permanently shutdown as required in CP No. 089-3630, issued on March 20, 1995. Also, as required in CP No. 089-6919-00316 issued on December 30, 1996, the emissions from the No. 1 Electric Arc Furnace shop (stacks 141 and 143) shall be limited as follows in tons per year:

TSP	PM_{10}	SO_2	Lead	VOC	NO_x	CO
133.2	108.0	336.7	1.23	11.3	159.6	2303.5

(c) Pursuant to CP 089-3630-00316 issued March 20, 1995, the 70.6 tons per year of sulfur dioxide shall be offset by 77 tons per year credit from the permanent shutdown of the 2AC boiler No. 207-10.

(d) Pursuant to Significant Source Modification No.: 089-25598-00316, the production of leaded steel at the No. 1 Electric Arc Furnace Shop shall not exceed 640,900 tons per twelve (12) consecutive months with compliance determined at the end of each month, and the lead emission from the No. 1 Electric Arc Furnace Shop shall be limited as follows:

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

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

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

Compliance Determination Requirements

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

(a) Within thirty (30) months of issuance of this permit (T089-6577-00316), or 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 SO2 and opacity testing on the electric arc furnace baghouse (stack 141) and the Ladle Metallurgical Facility (stack 143) utilizing a testing method approved by the Commissioner conditions D.8.3 and D.8.4, in accordance with Section C - Performance Testing. This test shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

(b) Pursuant to Significant Source Modification 089-25598-00316, the Permittee shall perform lead (Pb) emissions testing, utilizing methods approved by the Commissioner to show compliance with condition D.8.9 for stacks 136, 137, and 138 for the No. 1 Electric Arc Furnace Shop. Testing shall be conducted in accordance with Section C–Performance Testing. This test shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

D.8.11 Particulate Control [326 IAC 2-7-6(6)]

(a) The electric arc furnace baghouse (141) for PM10 control shall be in operation at all times that the electric arc furnace is in operation.

(b) The ladle metallurgical station baghouse (143) for PM10 control shall be in operation at all times that the ladle metallurgical station is in operation.

(c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

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

(a) Visible emission notations of the electric arc furnace shop baghouses (141, 136, 137, 138 and 143) exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

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

(b) The Permittee shall record the pressure drop across the baghouse used in conjunction with the ladle metallurgical station processes (143) at least once per day when the ladle metallurgical station processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0-10.5 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

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

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

D.8.14 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

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

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

D.8.15 Record Keeping Requirements

(a) To document compliance with Conditions D.8.6 and D.8.14, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the EAF.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) In order to document compliance with Condition D.8.9(d), the Permittee shall maintain records of the tons of leaded steel produced at the No. 1 EAF Shop.

(c) In order to document compliance with Condition D.8.12, the Permittee shall maintain records of once per day visible emission notations of the electric arc furnace operations baghouse stack exhaust(s). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) In order to document compliance with condition D.8.13, the Permittee shall maintain the once per day records of the pressure drop across the baghouse during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(e) Pursuant to CP 089-3630, issued March 20, 1995, a log of the information necessary to document compliance with Conditions D.8.4 (a), (b), (c), D.8.5, and D.8.9(c), shall be maintained.

(f) A log of the information necessary to document compliance with Condition D.8.7 shall be maintained. The records shall include the cumulative amount of natural gas fired by the ladle preheaters for each month of operation.

(g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.8.16 Reporting Requirements

(a) A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D. 8.6 and D.8.15(a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(b) A quarterly summary of the information to document compliance with Condition D.8.9(d) 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.

SECTION D.9 FACILITY OPERATION CONDITIONS

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

(j) 80" Hot Strip Mill comprised of the following facilities, process equipment, and operational practices:

(1) One (1) No. 4 Walking Beam Furnace, with an estimated maximum heat input rate of 720 MMBtu/hr, equipped with low NOx burners and using natural gas as fuel, exhausting through stack 101 and 102, installed in 2001.

(2) One (1) No. 5 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 107, installed in 1995.

(3) One (1) No. 6 Walking Beam Furnace, with an estimated maximum heat input rate of 685.6 MMBtu/hr, exhausting through stack 108, installed in 1995.

(4) One (1) Hot Rolling Mill Operation, including roughing mill with cooling water spray, crop shear and finishing stands exhausting to roof monitor 109.

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

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

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

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

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

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

(a) NOx emissions shall not exceed 357 pounds per million cubic feet of natural gas.

(b) Carbon monoxide emissions shall not exceed 13 pounds per million cubic feet of natural gas

(c) the total heat input to the three walking furnaces shall not exceed an hourly rate of 1371.2 MMBtu/hr

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

Pursuant to CP 089-4400 issued on August 23, 1995, the amount of natural gas-fired shall be limited to twelve billion ($12X10^9$) cubic feet per 12 consecutive months with compliance determined at the end of each month.

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

Pursuant to CP 089-4400 issued on August 23, 1995, SO2 emissions from the 80" Hot Strip Mill, Walking Beam Furnaces shall be minimized by using natural gas only as fuel.

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

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

(1) “C” Coke Battery underfire

(2) “C” Coke Battery preheater

(3) "C" Coke Battery process fugitives

(4) "C" Coke Battery NH4 destruct

(5) No. 3 Blast Furnace Stoves

(6) 80" Hot Strip Mill Pusher Furnaces

(7) No. 3 Bloom Mill reheat

(8) 14" Bar Mill reheat furnaces

(9) 24" Bar Mill reheat furnaces

(10) No. 3 Open Hearth

(11) 10" Bar Mill Reheat Furnace

(12) 44" Hot Strip Mill reheat

(b) The reactivated two (2) natural gas fired Pusher Furnaces in CP 089-3192**,** issued on October 26, 1994**,** and the previously restricted backup Furnaces in PC (45) 1717**,** issued on December 15, 1988**,** at the 80" Hot Strip Mill shall be permanently removed from service.

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

Compliance Determination Requirements

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

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

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

D.9.7 Record Keeping Requirements

(a) To document compliance with Condition D.9.3, the Permittee shall maintain records of natural gas use.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.9.8 Reporting Requirements

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

SECTION D.10 FACILITY OPERATION CONDITIONS

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

(k) 12" Bar Mill comprised of the following facilities, process equipment, and operational practices:

(1) One (1) Billet Inspection Line Shotblaster, installed in 1994 with emissions controlled by a baghouse having an estimated maximum flow rate of 5000 acfm vented inside the building.

(2) One (1) Billet Grinding installed in 1977 exhausting through stack 87.

(3) One (1) natural gas fired Billet Reheat Furnace, installed in 1977, having an estimated maximum heat input of 375 MMBtu/hr, exhausting through stack 89

(4) One (1) 23 Stand Rolling Mill exhausting to roof monitor 88.

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

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

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

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

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

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

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

Pursuant to 326 IAC 7-4.1-1, SO2 emissions from the 12" Bar Mill Billet reheat furnace (89), shall be minimized by use of natural gas only.

Compliance Determination Requirements

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

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

SECTION D.11 FACILITY OPERATION CONDITIONS

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

(l) No. 3 Cold Strip Mill comprised of the following facilities, process equipment, and operational practices:

(1) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.

(2) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.

(3) 56 inch Tandem Mill (4 Stands) controlled by a mist eliminator exhausting through stack 177.

(4) 80 inch Tandem Mill (5 Stands) controlled by a mist eliminator exhausting through stack 175.

(5) Temper Mill No. 28 exhausting through stack 180.

(6) Temper Mill No. 29 exhausting through stack 181.

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

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

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

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

SECTION D.12 FACILITY OPERATION CONDITIONS

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

(m) Coated Products comprised of the following facilities, process equipment, and operational practices:

(1) No. 3 Galvanizing Line constructed in 1955, including:

(A) One (1) natural gas fired Non-Oxidizing Furnace with an estimated maximum heat input of 62 MMBtu/hr, equipped with recuperators waste gas burners exhausting through stack 81.

(B) One (1) natural gas fired reducing furnace with an estimated maximum heat input of 12.8 MMBtu/hr, hydrogen and nitrogen (static atmosphere), vented inside the building (open roof monitor-81A).

(2) No. 5 Galvanizing Line constructed in 1968, including:

(A) One (1) natural gas fired Radiant tube reducing furnace utilizing recuperative radiant tube burners with a an estimated maximum heat input of 112.6 MMBtu/hr, exhausting through stack 182.

(B) One (1) natural gas fired Galvanneal Furnace with an estimated maximum heat input of 36 MMBtu/hr, exhausting inside the building (open roof monitor)-182A.

(3) No. 4 Aluminizing Line constructed in 1955, including:

(A) One (1) natural gas fired Oxidizing Furnace with an estimated maximum heat input of 27 MMBtu/hr exhausting through stack 84.

(B) One (1) natural gas fired 4-line radiant tube reducing furnace section with an estimated maximum heat input of 19.14 MMBtu/hr, equipped with low NOx twin regenerative burners, exhausting through stack 84.

(C) hot dip Al/Si Pot, roll preheater and premelt furnace.

(4) No. 1 Normalizer constructed in 1957, including:

(A) One (1) natural gas fired reducing furnace with 193 natural gas fired Eclipse SER burners with a total heat input of 31.652 MMBtu/hr exhausting through stack 183.

(B) One (1) natural gas fired flame heater furnace with an estimated maximum heat input of 28 MMBtu/hr annealing furnace exhausting through stack 183

(C) One (1) acid cleaning tank using hydrochloric acid and one (1) cascade rinse tank with emissions controlled by a fume scrubber and exhausting through stack 184.

(5) No. 3 Continuous Anneal Line constructed in 1982, including:

(A) One (1) natural gas fired Annealing Furnace and One (1) natural gas fired Age Furnace with an estimated total maximum heat input of 108 MMBtu/hr, hydrogen and nitrogen (static atmosphere), vented through stack 173.

(B) One (1) acid cleaning tank using hydrochloric acid with emissions controlled by a fume scrubber and exhausting through stack 174.

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

(6) Batch Anneal Facilities including:

(A) No. 5 Batch Anneal constructed in 1958, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 136 MMBtu/hr exhausting through stack 112.

(B) No. 6 Batch Anneal constructed in 1970, equipped with annealing furnaces and hydrogen anneal bases, purge and inner cover with an estimated maximum heat input of 205 MMBtu/hr exhausting through stack 113.

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

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

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

Pursuant to326 IAC 6.8-6-17(c), the following combustion sources shall fire natural gas only:

(a) No.3 Galvanizing Line (81)

(b) No. 5 Galvanizing Line (182)

(c) No. 1 Normalizing Line (184)

(d) No. 3 Continuous Anneal Line (173)

(e) No. 5 and No. 6 Batch Anneals (112 and 113)

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

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), the particulate matter emissions from the reducing furnace (81A), galvanneal furnace (182A), No.4 Aluminizing line (84), flame heating furnace (183) and annealing furnace (174) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.12.3 No. 4 Aluminizing Line Radiant Tube Reducing Furnace Limitations

Pursuant to CP 45-1854, issued on July 11, 1990, the furnace shall be fired by natural gas and rated at 19.136 MMBtu/hr heat input.

D.12.4 Opacity

Pursuant to CP 45-1854, issued on July 11, 1990, opacity from any stack, other process exhaust, building roof monitor, or building opening due to operation of the No. 4 Aluminizing line radiant tube furnace shall not exceed 5% opacity, per 40 CFR, Part 60, Appendix A, Method 9 and 326 IAC 5-1.

D.12.5 Sulfur Dioxide (SO2) [326 IAC 7-4.1-1]

(a) Pursuant to CP 089-3551, issued on October 28, 1994 and 326 IAC 7-4.1-1, SO2 emissions from burners at the No. 1 Normalizer Line (184) shall be minimized by firing natural gas only.

(b) Pursuant to 326 IAC 7-4.1-1, SO2 emissions from the No. 5 and No.6 Batch Anneal furnaces (112 and 113), shall be minimized by firing natural gas only.

D.12.6 Nitrogen Oxide (NOx) [326 IAC 2-2]

(a) Pursuant to CP 089-4940, issued on June 19, 1996, only natural gas shall be fired in the No. 5 Galvanizing Line recuperative radiant tube burners and NOx emissions shall not exceed three hundred-fifty (350) pounds per million cubic feet of natural gas burned and

existing burners shall be removed. The total maximum heat input shall not exceed 74.9 MMBtu/hr.

(b) Pursuant to CP 45-1854, issued on July 11, 1990, No. 4 Aluminizing Line radiant tube furnace NOx emissions shall be limited to 0.375 lb/MMBtu, 7.2 lb/hr and 31.43 tpy.

(c) Pursuant to CP 089-3551, issued on October 28, 1994, the NOx from the No. 1 Normalizer radiant tube annealing furnace shall not exceed 0.43 lbs/MMBtu heat input.

(d) Pursuant to CP 089-8672, issued on June 15, 1998, NOx potential to emit from No. 5 and No.6 Batch Anneal facilities shall not exceed a total of 0.2 lbs/MMBtu. This is equivalent to 20.19 tons per year.

D.12.7 Carbon Monoxide (CO)[326 IAC 2-2]

Pursuant to CP 45-1854, issued on July 11, 1990, No. 4 Aluminizing Line radiant tube furnace CO emissions shall be limited to 0.02 lb/MMBtu, 0.4 lb/hr and 1.7 tpy.

D.12.8 Emission Offsets [326 IAC 2-3]

(a) Pursuant to CP 089-3551, issued on October 28, 1994, a total reduction of NOx, 140.7 tons per year (54.1 X 2.6) shall be achieved by the use of credited reduction from the permanent shutdown of the No. 2 AC Station Boilers 207-210 to achieve an internal offset of a 1.3 tons of NOx decrease for each 1.0 ton of NOx increase in lieu of the implementation of lowest achievable emission rate (LAER) to comply with 326 IAC 2-3-2(b)(3) and an additional minimum offset at the No. 2 AC Station Boilers 207-210 of 1.3 tons of NOx decrease for each 1.0 ton of NOx increase to comply with 326 IAC 2-3-3(a)(5).

(b) Pursuant to CP 089-3551, issued on October 28, 1994, the Permittee shall:

(1) maintain a permanent shutdown of its Nos.6, 7, 8, 9, 10 and 11 Coke Oven Batteries

(2) maintain a permanent shutdown of its No. 2 Bloomer and shall not restart the No. 2 Bloomer without obtaining approved construction permits from IDEM OAQ

(3) not restart Nos. 1 and 2 Blast Furnaces

(4) not restart No. 3 Open Coil Anneal

(5) maintain a permanent shut down of six (6) pits at its No. 4 Slabber and not restart any of the pits without first obtaining approved construction permits from IDEM OAQ

(c) Pursuant to CP 089-4940, issued on June 19, 1996, the 234.5 ton per year NOx reduction at No. 5 Galvanizing Line radiant tube furnaces required by 326 IAC 2-3-3(a) (2) shall be achieved by the shutdown of the following: 7.2 ton per year from open coil annealing furnace, 87.2 ton per year from No. 2 Bloomer, 67.7 ton per year from No. 1 Galvanizing line, 50.6 ton per year from No. 4 Slab Pits 1-18 and 22 ton per year from No. 8 Coke Battery.

(d) Pursuant to CP 089-8672, issued on June 15, 1998 and 326 IAC 2-3-3(a)(5)(B), the NOx emissions from the No. 5 and No. 6 Batch Anneal Facilities are additionally offset by a ratio of 1.3 to 1.0 as a substitute for lowest achievable emission rate (LAER). This requires a reduction of 10.83 tons per year of NOx, which will be deducted from the NOx emission decrease credit from the retirement of the No. 3 AC Station.

(e) Pursuant to CP 089-8672, issued on June 15, 1998 and 326 IAC 2-3, the anneal bases (No's 903-908) and three (3) new attendant furnaces (each furnace rated at 5.94 MMBtu/hr) at No. 6 Annealing Furnace shall not begin operation until the old facilities (bases No. 6-

9, 16-19 and 26-29) and their attendant eight (8) old furnaces (each furnace rated at 4.8 MMBtu/hr) are removed from service.

Compliance Determination Requirements

D.12.9 Particulate Matter (PM)

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

SECTION D.13 FACILITY OPERATION CONDITIONS

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

(n) Utilities comprised of the following facilities, process equipment, and operational practices:

(1) No. 2 AC Station including:

(A) Three (3) Boilers identified as 211-213, fired by natural gas and blast furnace gas from No. 5 and No. 6 blast furnaces:

(i) Boiler 211 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 125 and 126.

(ii) Boiler 212 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1948 exhausting through stacks 127 and 128.

(iii) Boiler 213 with an estimated maximum heat input of 468 MMBtu/hr, installed in 1949 exhausting through stacks 129 and 130.

(B) Two (2) Blast Furnace Gas Flares to burn excess blast furnace gas from No. 5 and No. 6 Blast Furnaces exhausting through stack 131.

(C) Nine (9) turbo blowers and five (5) electricity generators.

(2) No. 5 Boilerhouse installed in 1976, including Boilers 501-503 fired by blast furnace gas from No. 7 blast furnace and mixed gas, each with an estimated maximum heat input of 520 MMBtu/hr exhausting through stack 134. The boilers produce steam, which is used in three turbo blowers to produce blast air, at generators to produce electrical power, and for general plant use.

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

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

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

Pursuant to 326 IAC 6.8-2-17 (Lake County PM10 Requirements), PM10 emissions from the Utilities operations shall not exceed the following:

(a) PM10 emissions from the No.2 AC Station Boilers 211-213 shall not exceed 0.018 lbs/ MMBtu and 16.20 pounds per hour

(b) PM10 emissions from the No. 5 Boilerhouse 501-503 shall not exceed 0.013 lbs/ MMBtu and 18.05 pounds per hour

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

D.13.2 Sulfur Dioxide (SO_2) [326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a), the sulfur dioxide emission rate from these units shall be limited to the following:

(a) SO_2 emissions from No.2 AC Station Boilers 211-213, shall not exceed 0.140 lbs/ MMBtu each and 168 lbs/hour total.

(b) SO_2 emissions from No. 5 Boilerhouse 501-503, shall not exceed 0.198 lbs/MMBtu and 265.2 lbs/hour.

D.13.3 Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

(a) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003 and 326 IAC 2-2-3 (Control Technology Review: Requirements) the carbon monoxide emissions from the various stacks associated with the No.7 Blast Furnace shall not exceed the following limitations:

Stack ID, associated equipment	Type of fuel combusted at the equipment	CO emissions limitations (pound/MMSCF of fuel)
134, No.5 Boiler House	Blast Furnace Gas	13.7
	Natural Gas	84
	Combination gas (a mix of natural gas and blast furnace gas)	$\frac{\text{13.7 X Usage of BFG (MMSCF)+ 84 X Usage of NG (MMSCF)}}{\text{Total usage of BFG and NG (MMSCF)}}$

(b) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, if the stack tests required under condition D.13.7 show that the CO emission limitations in condition D.13.3 are not achievable in practice, the Permittee can request the Department to re-evaluate the CO emissions limitations in D.13.3 (a). The department may, at its discretion, use the authority under IC 13-15-7-2 to re-open and revise the limit to more closely reflect the actual stack test results. The Department will provide an opportunity for public notice and comment prior to finalizing any permit decision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit modification.

D.13.4 NOx Budget Unit Exemption [326 IAC 10-4-3]

Pursuant to 326 IAC 10-4-3 (Retired unit exemption), No. 4 AC Boilers 401 through 405 shall be exempt from the NOx Budget trading program, except for the provisions of 326 IAC 10-4-3 and 326 IAC 10-4-1, 10-4-2, 10-4-5, 10-4-9, 10-4-10, and 10-4-11. The Permittee submitted a NOx Budget Retired Unit Exemption notice on May 28, 2003 for No. 4 AC Boilers 401 through 405. The notice stated No. 4 AC Boilers 401 through 405 are permanently retired as of June 30, 2003. Therefore, the Permittee shall comply with the following:

(a) The units shall not emit any nitrogen oxides, starting on June 30, 2003.

(b) The owners and operators of the units shall be allocated allowances in accordance with 326 IAC 10-4-9. For each ozone control period for which the unit is allocated one (1) or more NOx allowances, the owners and operators of the unit shall specify a general account, in which U.S. EPA will record the NOx allowances.

(c) The unit shall not resume operation unless the NOx authorized account representative of the source submits a complete NOx budget permit application under 326 IAC 10-4-7(c) for the unit not less than two hundred seventy (270) days prior to the later of:

(1) May 31, 2004; or

(2) the date on which the unit is to first resume operation.

(d) The owners and operators and, to the extent applicable, the NOx authorized account representative shall comply with the requirements of the NOx budget trading program concerning all periods for which the exemption is not in effect, even if the requirements arise, or must be complied with, after the exemption takes effect.

(e) A unit that is exempt under this section is not eligible to be a NOx budget opt-in unit under 326 IAC 10-4-13.

(f) A unit exempt under 326 IAC 10-4-3(b) shall lose its exemption on the earlier of the following dates:

(1) The date on which the NOx authorized account representative submits a NOx budget permit application under subdivision (3) or (4).

(2) The date on which the NOx authorized account representative is required under subdivision (3) or (4) to submit a NOx budget permit application.

For the purpose of applying monitoring requirements under 40 CFR 75, Subpart H, a unit that loses its exemption under this section shall be treated as a unit that commences operation or commercial operation on the first date on which the unit resumes operation.

D.13.5 Equipment and Operational Specifications [326 IAC 2-2]

Pursuant to CP 089-3551 issued on October 28, 1994, the Permittee shall limit the use of Blast Furnace Gas and natural gas up to a maximum of 1410 MMBtu/hr in all boilers inclusive or in any boiler combination in lieu of oil as fuel at No. 2 AC Station.

D.13.6 Operation Restriction – Shutdown of No.4 AC Station [326 IAC 2-2][326 IAC 2-3]

(a) Pursuant to 326 IAC 2-2 and 326 IAC 2-3, within 30 days after the date of issuance of Significant Source Modification 089-16966-00316, issued on November 26, 2003, five (5) coal fired boilers identified as 401, 402, 403, 404 and 405 that form the part of 4 AC station and all the associated equipment for the operation of these boilers shall be shutdown permanently. In addition within 180 days of issuance of Significant Source Modification 089-16966-00316, issued on November 26, 2003 or before the restart of the No.7 Blast Furnace operation after the reline project in 2003, these boilers shall be physically disconnected and permanently removed from service.

(b) On and after the date of issuance of Significant Source Modification 089-16966-00316, issued on November 26, 2003, the Permittee shall request the IDEM, OAQ to remove the 4 AC station and all the associated equipment permanently from the emissions inventory maintained by the State.

(c) This condition supercedes all conditions in previous permits that allow the operation of the 4 AC station and its associated equipment.

Compliance Determination Requirements

D.13.7 Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1), (6)]

Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, within 60 days of achieving stable production rate after the start of four stove operation, but no later than 180 days after the start of four stove operation at the No.7 Blast Furnace the Permittee shall perform CO emissions testing, utilizing methods approved by the Commissioner to show compliance with condition D.13.1 for stack 134 for the No.5 Boiler House. Testing for the fuel combustion emission units shall be performed when the fuel having worst case emission factor is utilized. Testing shall be conducted in accordance with Section C –Performance Testing.

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

D.13.8 Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D.13.2, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

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

D.13.9 Record Keeping Requirements

(a) To document compliance with Conditions D.13.2 and D.13.8, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No.2 AC Station Boilers 211-213 and No. 5 Boilerhouse 501-503.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) To document compliance with D.13.4 and 326 IAC 10-4-3(e)(7), the Permittee shall retain records at the source, or at a central location within Indiana for those owners or operators with unattended sources, demonstrating that the units are permanently retired for a period of five (5) years. The five (5) year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the department of the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to the department or U.S. EPA within three (3) business days following receipt of a written request.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.13.10 Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.13.2 and D.13.9 (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

SECTION D.14 FACILITY OPERATION CONDITIONS

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

(o) Shops comprised of the following facilities, process equipment, and operational practices:

(1) Mold Foundry Building: Pugh Ladle Car Preparation, dekishing, debricking and drying fired by natural gas (44) and Pugh ladle lancing fired by natural gas with emissions controlled by former mold foundry baghouse exhausting through stack 43. This baghouse also controls Pugh Ladle pigging emissions resulting from the adjacent contractor's operation.

(2) No. 6 Roll shop for 12 inch bar mill including shotblaster with emissions controlled by a baghouse and exhausting through stack 200.

(3) Electric Shop including shotblaster with emissions controlled by a baghouse and exhausting through stack 201, blaster baghouse unloading, paint booth, varnish dip tanks and undercutting booth.

(4) No. 4 Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 203, Wheelabrator shotblaster with emissions controlled by a baghouse and exhausting through stack 204.

(5) No. 4 A Roll Shop including Ervin shotblaster with emissions controlled by a baghouse and exhausting through stack 205 and Pangborn shotblaster with emissions controlled by a baghouse and exhausting through stack 206.

(6) No. 5 Roll Shop.

(7) Mobile Equipment shop including refrigerant recovery and parts cleaning.

(8) Equipment Repair Shop including Machine Shop (Plant 2).

(9) Mason Building Shop.

(10) Refrigeration Shop.

(11) Fabrication and Repair Shop (Plant 1).

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

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

D.14.1 Lake County PM10 emission requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17, TSP and PM10 emissions from the Shop operations shall not exceed the following:

(a) PM10 emissions from the former mold foundry baghouse (43) shall not exceed 0.011 gr/dscf and 26 lbs/hr.

(b) TSP emissions from the No. 6 roll shop rollshot blaster baghouse (200) shall not exceed 0.0052 gr/dscf and 0.200 lbs/hr.

(c) TSP emissions from the Electric shop shotblaster baghouse (201) shall not exceed 0.0052 gr/dscf and 1.070 lbs/hr.

(d) TSP emissions from the No. 4 roll shop Ervin shotblaster baghouse (203) shall not exceed 0.0052 gr/dscf and 0.210 lbs/hr.

(e) TSP emissions from the No. 4 roll shop Wheelabrator shotblaster (204) baghouse shall not exceed 0.0052 gr/dscf and 0.260 lbs/hr.

(f) TSP emissions from the No. 4A roll shop Ervin shotblaster baghouse (205) shall not exceed 0.0052 gr/dscf and 0.210 lbs/hr.

(g) TSP emissions from the No. 4A roll shop Pangborn shotblaster (206) baghouse shall not exceed 0.0052 gr/dscf and 0.260 lbs/hr.

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

D.14.2 Prevention of Significant Deterioration and Emission Offset [326 IAC 2-2][326 IAC 2-3]

The pugh car lancing operation and the dekishing and debricking operations shall be conducted inside the mold foundry building as required in CP No. 089-2905 issued on March 29, 1993. The emissions from the lancing operations, shall be captured and exhausted to the former mold foundry baghouse with particulate matter emissions not to exceed 26.0 pounds per hour and 0.011 grains per dry standard cubic foot of exhaust air. The iron dumping operation, which accompanied these operations has been replaced by pigging. However, in an emergency or when the pig machine is not available, iron dumping is used. Lancing of Pugh Ladles shall not occur simultaneously with Pugh ladle pigging operations at the adjacent contractor. Therefore, the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) do not apply.

D.14.3 Sulfur Dioxide (SO_2)[326 IAC 7-4.1-11]

Pursuant to 326 IAC 7-4.1-11(a), the SO_2 emissions from the pigging ladle facility (43) shall not exceed 0.020 lbs/ton and 4.000 lbs/hour.

Compliance Determination Requirements

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

(a) The former Mold Foundry, No. 6 Roll shop, Electric shop, and No. 4 Roll Shop baghouses shall be operated at all times that related processes at the subject facilities are operating. At the former Mold Foundry that equipment includes Pugh Ladle Car Lancing.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.14.5 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

(a) Visible emission notations of the former mold foundry baghouse (43) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.14.6 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the former mold foundry baghouse (43) stack once per day when the processes are in operation and venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

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

D.14.7 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

For a single compartment baghouse-controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.14.8 Record Keeping Requirements

(a) To document compliance with Condition D.14.5 the Permittee shall maintain records of once per day visible emission notations of the former mold foundry baghouse (43) stack exhaust.

(b) To document compliance with Condition D.14.6, the Permittee shall maintain once per day records of the pressure drop across the former mold foundry baghouse (43) during normal operation when venting to the atmosphere.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.15 FACILITY OPERATION CONDITIONS

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

(p) Storage Vessels:

(1) One (1) 21,380 gallon tank (T19K1) containing Diesel No. 2, located at the "E" Yard – Internal Logistics, constructed prior to 1972.

(2) One (1) 21,380 gallon tank (T-8H1) containing Diesel No. 2, located at the "B" Yard – 2 BOF, constructed prior to 1972.

(3) One (1) 10,000 gallon tank (T20K-1) containing Diesel No. 2, located at the Main Shop Fueling Station – Internal Logistics, constructed in 1997.

(4) One (1) 8,000 gallon tank (T02E-1) containing Diesel No. 2, located south of the bar company scrap yard - 12" Bar Mill constructed in 1999.

(5) One (1) 7,500 gallon tank (T1G-1) containing Diesel No. 2, located north of the Electric Furnace Billet Caster constructed in 1999.

(6) One (1) 6,000 gallon tank (T25E-1) containing Diesel No. 2, located at the No. 7 Blast Furnace Emergency Pump House, constructed in 1994.

(7) One (1) 5,000 gallon tank (T17P-1) containing Diesel No. 2, located at the 80" Hot Strip Mill coil carrier fuel station, constructed in 1994.

(8) One (1) 4,200 gallon tank (T10-200) containing Diesel No. 2, located at the No. 3 Cold Strip East bulk oil storage area constructed in 1970.

(9) One (1) 3,355 gallon tank (T18E-1) containing Diesel No. 2, located at the #4 BOF Mobile Equipment Shop, constructed in 1994.

(10) Two (2) 3,000 gallon tanks (T10-232a & T10-232b) containing Power Clean, located at the No. 3 Cold Strip East, Nos. 4 and 5 Hydraulic System, constructed in 1970.

(11) One (1) 130,000 gallon tank (T-17F1) containing Reclaimed oil, located at the Lime Plant, constructed in 1973.

(12) One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.

(13) One (1) 1,016,000 gallon tank (T-6F1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.

(14) One (1) 1,016,000 gallon tank (T-6F2) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1976.

(15) One (1) 500,000 gallon tank (T-6F3) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1975.

(16) One (1) 100,000 gallon tank (T-02F1) containing #6 fuel oil, located at the 12" Bar Mill, constructed in 1977.

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

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

(17) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.

(18) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

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

Emission Limitations and Standards

D.15.1 Volatile Organic Liquid Storage Vessels [326 IAC 8-9]

Pursuant to 326 IAC 8-9-1, the Permittee is required to keep records on the information in 326 IAC 8-9-6(a)-(b) for all storage vessels containing recycled oil, #2 fuel oil, #6 fuel oil, bunker oil and reclaim oil.

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

D.15.2 Record Keeping Requirements

Pursuant to 326 IAC 8-9, the Permittee must keep records of the following:

(a) The vessel identification number;

(b) The vessel dimensions; and

(c) The vessel capacity.

Records shall be maintained for the life of the vessel.

SECTION D.16 FACILITY OPERATION CONDITIONS

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

Specifically Regulated Insignificant Activities:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons. [326 IAC 8-9-1]

(2) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2] [326 IAC 8-3-5]

(3) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment. [326 IAC 6.8-1-2]

(4) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. [326 IAC 6.8-1-2]

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

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

D.16.1 Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (Nonattainment Area Particulate Limitations), grinding and machining operations shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.16.2 Volatile Organic Liquid Storage Vessels [326 IAC 8-9-1]

Pursuant to 326 IAC 8-9-1, the Permittee is required to keep records on the information in 326 IAC 8-9-6(a)-(b) for all Volatile Organic liquid storage vessels.

D.16.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations existing as of January 1, 1980, located in Clark, Elkhart, Floyd, Lake, Marion, Porter and St. Joseph Counties and which have potential emissions of one hundred (100) tons per year or greater of VOC, the Permittee shall:

(a) Equip the cleaner with a cover;

(b) Equip the cleaner with a facility for draining cleaned parts;

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.16.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs existing as of July 1, 1990, located in Lake, County, the Permittee shall ensure that the following requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°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^{O}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.

Compliance Determination Requirement

D.16.5 Particulate Control

In order to comply with D.16.1, the control equipment for particulate control shall be in operation and control emissions from the grinding and machining operations at all times that the grinding and machining operations are in operation.

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

D.16.6 Record Keeping Requirements

Pursuant to 326 IAC 8-9, the Permittee must keep records of the following:

(a) The vessel identification number;

(b) The vessel dimensions; and

(c) The vessel capacity.

Records shall be maintained for the life of the vessel.

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

Pursuant to 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers), the users, providers, and manufacturers of solvents for use in cold cleaning degreasers in Clark, Floyd, Lake, and Porter Counties, except for solvents intended to be used to clean electronic components shall do the following:

(a) On and after November 1, 1999, no person shall operate a cold cleaning degreaser with a solvent vapor pressure that exceeds two (2) millimeters of mercury (thirty-eight thousandths (0.038) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) On and after May 1, 2001, no person shall Operate a cold cleaning degreaser with a solvent vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(c) On and after November 1, 1999, all persons subject to the requirements of 326 IAC 8-3-8 (c)(1)(B) and (c)(2)(B) shall maintain each of the following records for each purchase:

(1) The name and address of the solvent supplier.

(2) The date of purchase.

(3) The type of solvent.

(4) The volume of each unit of solvent.

(5) The total volume of the solvent.

(6) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(d) All records required by 326 IAC 8-3-8 (d) shall be retained on-site for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

SECTION E Nitrogen Oxides Budget Trading Program - NO_X Budget Permit for NO_X Budget Units Under 326 IAC 10-4-1(a)

ORIS Code: 10474

NO_X Budget Source [326 IAC 2-7-5(15)] (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Utilities comprised of the following facilities, emission units, process equipment, and operational practices:

(1) No. 2 AC Station including Boilers 211-213, fired by blast furnace gas from No. 5 and No. 6 blast furnaces and natural gas exhausting through combustion stacks 125-130, installed in 1948 and 1949

(2) No. 5 Boilerhouse including Boilers 501-503, fired by blast furnace gas from No. 7 blast furnace and mixed gas, exhausting through stack 134, installed in 1976

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

This NO_X 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 NO_X budget source and each NO_X budget unit shall operate each unit in compliance with this NO_X budget permit.

The NO_X budget units subject to this NO_X budget permit include the following: No. 2 AC Station, including Boilers 211-213, and No. 5 Boilerhouse, including Boilers 501-503.

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

(a) The owners and operators and, to the extent applicable, the NO_X authorized account representative of the NO_X budget source and each NO_X 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_X 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 NO_X budget source and each NO_X budget unit at the source shall hold NO_X allowances available for compliance deductions under 326 IAC 10-4-10(j), as of the NO_X 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_X 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_X budget trading program, or a change in regulatory status of a NO_X budget opt-in unit.

(b) Each ton of NO_X emitted in excess of the NO_X budget emissions limitation shall constitute a separate violation of the Clean Air Act (CAA) and 326 IAC 10-4.

(c) Each NO_X 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) NO_X allowances shall be held in, deducted from, or transferred among NO_X 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 NO_X 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 NO_X allowance was allocated.

(f) A NO_X allowance allocated under the NO_X budget trading program is a limited authorization to emit one (1) ton of NO_X in accordance with the NO_X budget trading program. No provision of the NO_X budget trading program, the NO_X budget permit application, the NO_X 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 NO_X allowance allocated under the NO_X 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 NO_X allowance to or from each NO_X 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_X budget permit of the NO_X 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 NO_X budget unit that has excess emissions in any ozone control period shall do the following:

(a) Surrender the NO_X 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 NO_X budget source and each NO_X 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 NO_X authorized account representative for the source and each NO_X 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_X 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 NO_X budget trading program.

(d) Copies of all documents used to complete a NO_X budget permit application and any other submission under the NO_X budget trading program or to demonstrate compliance with the requirements of the NO_X 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 the department 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 NO_X authorized account representative of the NO_X budget source and each NO_X budget unit at the source shall submit the reports and compliance certifications required under the NO_X 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 10-4-6(e), each submission shall include the following certification statement by the NO_X authorized account representative: "I am authorized to make this submission on behalf of the owners and operators of the NO_X budget sources or NO_X 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."

Where 326 IAC 10-4 requires a submission to IDEM, OAQ, the NO_X authorized account representative shall submit required information to:

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

Where 326 IAC 10-4 requires a submission to U.S. EPA, the NO_X 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 NO_X budget source shall be liable as follows:

(a) Any person who knowingly violates any requirement or prohibition of the NO_X budget trading program, a NO_X 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 NO_X 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 NO_X budget trading program that occurs prior to the date that the revision takes effect.

(d) Each NO_X budget source and each NO_X budget unit shall meet the requirements of the NO_X budget trading program.

(e) Any provision of the NO_X budget trading program that applies to a NO_X budget source, including a provision applicable to the NO_X authorized account representative of a NO_X budget source, shall also apply to the owners and operators of the source and of the NO_X budget units at the source.

(f) Any provision of the NO_X budget trading program that applies to a NO_X budget unit, including a provision applicable to the NO_X authorized account representative of a NO_X 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 NO_X authorized account representative of one (1) NO_X budget unit shall not be liable for any violation by any other NO_X budget unit of which they are not owners or operators or the NO_X authorized account representative and that is located at a source of which they are not owners or operators or the NO_X authorized account representative.

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

No provision of the NO_X budget trading program, a NO_X budget permit application, a NO_X 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 NO_X authorized account representative of a NO_X budget source or NO_X budget unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the CAA.

SECTION F FUGITIVE DUST SOURCES

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

Fugitive Dust Sources consisting of, but not limited to the following:

(1) Paved Roads and Parking Lots

(2) Unpaved Roads and Parking Lots

(3) Batch Transfer-Loading and Unloading Operations

(4) Continuous Transfer In and Out of Storage Piles

(5) Batch Transfer Operations-Slag and Kish Handling

(6) Wind Erosion from Storage Piles and Open Areas

(7) In Plant Transfer by Truck or Rail

(8) In Plant Transfer by Front End Loader or Skip Hoist

(9) Material Processing Facility (except Crusher Fugitive Emissions)

(10) Crusher Fugitive Emissions

(11) Material Processing Facility Building Openings

(12) Dust Handling Equipment

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

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

(a) Pursuant to 326 IAC 6.8-10 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

(1) Paved roads and Parking Lots.

(A) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:

(i) The first shall be taken at the time of emission generation.
(ii) The second shall be taken five (5) seconds later.
(iii) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

(B) The Permittee shall implement the control measures specified by 326 IAC 6.8-10-4 within twenty-four (24) hours after notification by the IDEM, OAQ

or U.S.EPA of violating the average instantaneous opacity limit. A violation of the instantaneous average opacity limit is a violation of 326 IAC 6.8-10.

(C) When requested by the department or the U.S. EPA, after an exceedance of the opacity limit is observed by a representative of either agency, the source shall initiate a compliance check with the surface silt loading limit. The department may require a revision of the control plan under subsection 326 IAC 6.8-10-4, if the test shows an exceedance of the surface silt loading limit.

(2) Unpaved Roads and Parking Lots.

(A) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%). The average instantaneous opacity shall be the average of twelve (12) instantaneous opacity readings, taken for four (4) vehicle passes, consisting of three (3) opacity readings for each vehicle pass. The three (3) opacity readings for each vehicle pass shall be taken as follows:

(i) The first shall be taken at the time of emission generation.
(ii) The second shall be taken five (5) seconds later.
(iii) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

(B) The fugitive particulate emissions from unpaved roads shall be controlled by the implementation of a work program and work practice under the control plan required in 326 IAC 6.8-10-4. The department may request a revision of the control plan pursuant to 326 IAC 6.8-10, if an observation shows an exceedance of the average instantaneous opacity limit. The revision may be in lieu of, or in addition to, pursuing an enforcement action for a violation of the limit.

(3) Material Transfer Limits.

(A) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%). The average instantaneous opacity shall consist of the average of three (3) opacity readings taken five (5) seconds, ten (10) seconds, and fifteen (15) seconds after the end of one (1) batch loading or unloading operation. The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume.

(B) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%) three (3) minute average. This includes material transfer to the initial hopper of a material processing facility as defined in 326 IAC 6.8-10-2 or material transfer for transportation within or outside the source property including, but not limited to, the following:

(i) Transfer of slag product for use by asphalt plants:
(AA) From a storage pile to a front end loader; and

(BB) From a front end loader to a truck.

(ii) Transfer of sinter blend for use at the sinter plant:
(AA) From a storage pile to a front end loader;
(BB) From a front end loader to a truck; and
(CC) From a truck to the initial processing point.

(iii) Transfer of coal for use at a coal processing line:
(AA) From a storage pile to a front end loader; and
(BB) From a front end loader to the initial hopper of a coal processing line.

Compliance with any operation lasting less than three (3) minutes shall be determined as an average of consecutive operations recorded at fifteen (15) second intervals for the duration of the operation.

(C) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits.

(i) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.

(ii) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3.

(4) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9. The opacity readings shall be taken at least four (4) feet from the point of origin.

(5) Wind erosion from storage piles and exposed areas.

(A) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9, except that the opacity shall be observed at approximately four (4) feet from the surface at the point of maximum opacity. The observer shall stand approximately fifteen (15) feet from the plume and at approximately right angles to the plume. These limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During periods of sustained very high wind speeds, the Permittee must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.

(B) The opacity of fugitive particulate emissions from exposed areas shall not exceed ten percent (10%) on a six (6) minute average. The opacity shall be determined using 40 CFR 60, Appendix A, Method 9. These limitations may not apply during periods when application of fugitive particulate control measures are either ineffective or unreasonable due to sustained very high wind speeds. During periods of sustained very high wind speeds, the Permittee must continue to implement all reasonable fugitive particulate control measures and maintain records documenting the application of

measures and the basis for a claim that meeting the opacity limitation was not reasonable given prevailing wind conditions.

(6) Inplant Transportation of Material by Truck or Rail.

There shall be a zero (0) percent frequency of visible emission observations of a material during the in plant transportation of material by truck or rail at any time. Material transported by truck or rail that is enclosed and covered shall be considered in compliance with the in plant transportation requirement. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22, except that the observation shall be taken at approximately right angles to the prevailing wind from the leeward side of the truck or railroad car.

(7) Inplant Transportation of Material by Front End Loader or Skip Hoist.

The opacity of fugitive particulate emissions from the in plant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%). Compliance with this limitation shall be determined by the average of three (3) opacity readings taken at five (5) second intervals. The three (3) opacity readings shall be taken as follows:

(A) The first shall be taken at the time of emission generation.

(B) The second shall be taken five (5) seconds later.

(C) The third shall be taken five (5) seconds later or ten (10) seconds after the first.

The three (3) readings shall be taken at the point of maximum opacity. The observer shall stand at least fifteen (15) feet from the plume approximately and at right angles to the plume. Each reading shall be taken approximately four (4) feet above the surface of the roadway or parking area.

(8) Material Processing Facilities.

(A) The PM_{10} stack emissions from each material processing facility shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent (10%) opacity. Compliance with the concentration limitation shall be determined using the test methods found in 326 IAC 6.8-4-1. Compliance with the opacity limitation shall be determined by 40 CFR 60, Appendix A, Method 9.

(B) The opacity of fugitive particulate emissions from a material processing facility, except crusher at which a capture system is not used, shall not exceed ten percent (10%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.

(C) The opacity of fugitive particulate emissions from a crusher at which a capture system is not used shall not exceed fifteen percent (15%). Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9.

(D) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 22.

(E) The PM_{10} emissions from building vents shall not exceed twenty-two thousandths (0.022) grain per dry standard cubic foot and ten percent

(10%) opacity. Compliance with the concentration standard shall be determined by 40 CFR 60, Appendix A, Method 5 or 17, and with the opacity standard by 40 CFR 60, Appendix A, Method 9.

(9) Dust Handling Equipment. The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%). Compliance with this standard shall be determined by 40 CFR 60, Appendix A, Method 9.

(10) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute opacity standard. Compliance with this limitation shall be determined by 40 CFR 60, Appendix A, Method 9, except that the opacity standard shall be determined as an average of twelve (12) consecutive observations recorded at fifteen (15) second intervals. Compliance of any operation lasting less than three (3) minutes shall be determined as an average of consecutive observations recorded at fifteen (15) second intervals for the duration of the operation.

(b) The Permittee is subject to 326 IAC 6.8-11-4, 326 IAC 6.8-11-5 and 326 IAC 6.8-11-6 (Lake County Particulate Matter Contingency Measures) because it is subject to the requirements of 326 IAC 6.8-10.

(c) Permittee has submitted a Fugitive Dust Control Plan to the IDEM in accordance with 326 IAC 6.8-10 and has been attached to the Part 70 Permit. Permittee shall keep records consistent with its Fugitive Dust Control Plan.

SECTION G.1

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

The affected sources are each new or existing sinter plant windbox exhaust, discharge end, and sinter cooler; the blast furnace casthouse; and the BOPF shop including each individual BOPF and shop ancillary operations (hot metal transfer, hot metal desulfurization, slag skimming, and ladle metallurgy

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

G.1.1 General Provisions Relating to HAPs [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]

(a) The provisions of 40 CFR 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected sources, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

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

The Permittee shall comply with the following provisions of 63, Subpart FFFFF (included as Attachment A of the permit), which are incorporated by reference in 326 IAC 20-1:

(a) 40 CFR 63.7780

(b) 40 CFR 63.7781

(c) 40 CFR 63.7782

(d) 40 CFR 63.7783

(e) 40 CFR 63.7790

(f) 40 CFR 63.7800

(g) 40 CFR 63.7810

(h) 40 CFR 63.7820

(i) 40 CFR 63.7821

(j) 40 CFR 63.7822

(k) 40 CFR 63.7823

(l) 40 CFR 63.7824

(m) 40 CFR 63.7825

(n) 40 CFR 63.7826

(o) 40 CFR 63.7830

(p) 40 CFR 63.7831

(q) 40 CFR 63.7832

(r) 40 CFR 63.7833

(s) 40 CFR 63.7834

(t) 40 CFR 63.7835

(u) 40 CFR 63.7840

(v) 40 CFR 63.7841

(w) 40 CFR 63.7842

(x) 40 CFR 63.7843

(y) 40 CFR 63.7850

(z) 40 CFR 63.7851

(aa) 40 CFR 63.7852

(bb) Table 1

(cc) Table 2

(dd) Table 3

(ee) Table 4

SECTION G.2

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

(d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:

(1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).

(2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.

(3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.

(4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187.

(5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.

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

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

(a) The provisions of 40 CFR 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section G.2, except when otherwise specified in 40 CFR 60, Subpart Y.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

G.2.2 New Source Performance Standards for Coal Preparation Plants [40 CFR 60, Subpart Y] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Y (included as Attachment B of the permit), which are incorporated by reference in 326 IAC 12:

(1) 40 CFR 60.250;

(2) 40 CFR 60.251;

(3) 40 CFR 60.252;

(4) 40 CFR 60.253(a)(1);

(5) 40 CFR 60.253(b); and

(6) 40 CFR 60.254.

SECTION G.3

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

The No.1 and No. 2 Kiln baghouses (45), (49), and their associated cooler(s), and processed stone handling (PSH) operation system(s)

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

G.3.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source except when otherwise specified in Table 8 to 40 CFR 63 Subpart AAAAA.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

G.3.2 National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants [40 CFR 63, Subpart AAAAA]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart AAAAA (included as Attachment C of the permit), which are incorporated by reference in 326 IAC 20-1:

(a) 40 CFR 63.7080

(b) 40 CFR 63.7081

(c) 40 CFR 63.7082

(d) 40 CFR 63.7083

(e) 40 CFR 63.7090

(f) 40 CFR 63.7111

(g) 40 CFR 63.7112

(h) 40 CFR 63.7113

(i) 40 CFR 63.7114

(j) 40 CFR 63.7120

(k) 40 CFR 63.7121

(l) 40 CFR 63.7130

(m) 40 CFR 63.7131

(n) 40 CFR 63.7132

(o) 40 CFR 63.7133

(p) 40 CFR 63.7140

(q) 40 CFR 63.7141

(r) 40 CFR 63.7142

(s) 40 CFR 63.7143

(t) Table 1

(u) Table 2

(v) Table 3

(w) Table 4

(x) Table 5

(y) Table 6

(z) Table 7

(aa) Table 8

SECTION G.4

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

(a) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.

(b) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.

(c) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.

(d) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

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

G.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63. 63.1155, the Permittee shall comply with the provisions of 40 CFR Part 63 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the Pickle Line except as otherwise specified in 40 CFR Part 63, Subpart CCC.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

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

The Permittee which engages in the steel pickling-HCl process shall comply with the following provisions of 40 CFR 63, Subpart CCC (included as Attachment D of this permit), with a compliance date of June 22, 2001:

(1) 40 CFR 63.1155

(2) 40 CFR 63.1156

(3) 40 CFR 63.1157(a)

(4) 40 CFR 63.1159(b)

(5) 40 CFR 63.1160(a) and (b)

(6) 40 CFR 63.1161(a) and (b)

(7) 40 CFR 63.1162(a) and (c)

(8) 40 CFR 63.1163

(9) 40 CFR 63.1164

(10) 40 CFR 63.1165

(11) 40 CFR 63.1166

(12) Table 1

SECTION G.5

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

One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.

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

G.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) The provisions of 40 CFR 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section G.5, except when otherwise specified in 40 CFR 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

G.5.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60, Subpart Kb] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Kb (included as Attachment E of the permit), which are incorporated by reference in 326 IAC 12:

(1) 40 CFR 60.110b

(2) 40 CFR 60.111b

(2) 40 CFR 60.251

(2) 40 CFR 60.251

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: ArcelorMittal USA, Inc.
Source Address: 3210 Watling Street, East Chicago, Indiana 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312
Part 70 Permit No.: T089-6577-00316

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit. Please check what document is being certified: ☐ Annual Compliance Certification Letter ☐ Test Result (specify) ☐ Report (specify) ☐ Notification (specify) ☐ Affidavit (specify) ☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: ArcelorMittal USA, Inc.
Source Address: 3210 Watling Street, East Chicago, Indiana 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312
Part 70 Permit No.: T089-6577-00316

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12)

- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, 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

PART 70 OPERATING PERMIT
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: ArcelorMittal USA, Inc.
Source Address: 3210 Watling Street, East Chicago, Indiana 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312
Part 70 Permit No.: T089-6577-00316

☐ Natural Gas Only
☐ Alternate Fuel burned
From:_____ To:_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 QUARTERLY REPORT

Source Name: ArcelorMittal USA, Inc.
Source Address: 3210 Watling Street, East Chicago, Indiana 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312
Permit No.: 089-16966-00316
Facility: Slag pits at No.7 Blast Furnace
Parameter: Throughput of slag
Limit: 662,550 tons of slag processed at these facilities per 12 consecutive month period.

QUARTER:_____ YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 QUARTERLY REPORT

Source Name: ArcelorMittal USA, Inc.
Source Address: 3210 Watling Street, East Chicago, Indiana 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312
Permit No.: T089-6577-00316
Facility: No. 1 Electric Arc Furnace Shop
Parameter: Production of leaded steel
Limit: 640,900 tons of leaded steel produced per 12 consecutive month period

QUARTER:_____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: ArcelorMittal USA, Inc.
Source Address: 3210 Watling Street, East Chicago, Indiana 46312
Mailing Address: 3210 Watling Street MC 8-130, East Chicago, Indiana 46312
Part 70 Permit No.: T089-6577-00316

Months: ____ to Year: _____

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:	

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:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Attach a signed certification to complete this report.

APPENDIX A – EMISSION FACTORS

No.7 Blast Furnace and No.5 Boiler House emission points:

PM

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	0.68
	Natural gas	1.9
	Combination gas (a mix of natural gas and blast furnace gas)	0.68 X Usage of BFG (MMSCF)+ 1.9 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	0.68
	Natural Gas	1.9
	Combination gas (a mix of natural gas and blast furnace gas)	0.68 X Usage of BFG (MMSCF)+ 1.9 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	PM emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	22.0	pound/hour
166, Casthouse No.7 Blast Furnace west baghouse	11.22	pound/hour
169, Coke screening and transfer station baghouse	0.0002	pound/ton of coke
172, Stockhouse coke handling baghouse	0.0009	pound/ton of coke
168, Stockhouse pellet handling baghouse	0.0005	pound/ton of pellet
Slag pit operation at No.7 Blast Furnace	0.045	pound/ton of slag processed
Slag Granulator/Pelletizer	0.087	pound/ton of slag processed
171, Casthouse fugitive emissions	0.03	pound/ton of hot metal

PM_{10} (Filterable and Condensable)

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM_{10} (Filterable and Condensable)emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	4.51
	Natural gas	7.6
	Combination gas (a mix of natural gas and blast furnace gas)	4.51 X Usage of BFG (MMSCF)+ 7.6 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	4.51
	Natural Gas	7.6
	Combination gas (a mix of natural gas and blast furnace gas)	4.51 X Usage of BFG (MMSCF)+ 7.6 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	PM_{10} emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	30.1	pound/hour
166, Casthouse No.7 Blast Furnace west baghouse	19.3	pound/hour
169, Coke screening and transfer station baghouse	0.0001	pound/ton of coke
172, Stockhouse coke handling baghouse	0.0008	pound/ton of coke
168, Stockhouse pellet handling baghouse	0.0005	pound/ton of pellet
Slag pit operation at No.7 Blast Furnace	0.031	pound/ton of slag processed
Slag Granulator/Pelletizer	0.087	pound/ton of slag processed
171, Casthouse fugitive emissions	0.021	pound/ton of hot metal

SO_2

Stack ID, associated equipment	Type of fuel combusted at the equipment	SO_2 emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	14.7
	Natural gas	0.6
	Combination gas (a mix of natural gas and blast furnace gas)	14.7 X Usage of BFG (MMSCF)+ 0.6 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	14.7
	Natural Gas	0.6
	Combination gas (a mix of natural gas and blast furnace gas)	14.7 X Usage of BFG (MMSCF)+ 0.6 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	SO_2 emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.1774	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.1774	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.578	pound/ton of slag processed
Slag Granulator/Pelletizer	0.1	pound/ton of slag processed
171, Casthouse fugitive emissions	0.01	pound/ton of hot metal

CO

Stack ID, associated equipment	CO emissions factors	Units
167 Casthouse No. 7 Blast Furnace east baghouse	0.56	pounds/tons of hot metal
166 Casthouse No. 7 Blast Furnace west baghouse	2.22	pounds/tons of hot metal
Slag pit operation at No.7 Blast Furnace	0.066	pound/ton of slag processed
Slag Granulator/Pelletizer	0.066	pound/ton of slag processed
Gas Cleaning System	0.131	pound/ton of hot metal
171, Casthouse fugitive emissions	0.012	pound/ton of hot metal

NO_x

Stack ID, associated equipment	Type of fuel combusted at the equipment	NO_x emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	23
	Natural gas	104
	Combination gas (a mix of natural gas and blast furnace gas)	23 X Usage of BFG (MMSCF)+ 104 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	23
	Natural Gas	104
	Combination gas (a mix of natural gas and blast furnace gas)	23 X Usage of BFG (MMSCF)+ 104 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	NO_x emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.0248	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.0248	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.0248	pound/ton of slag processed
Slag Granulator/Pelletizer	0.01	pound/ton of slag processed
171, Casthouse fugitive emissions	0.0012	pound/ton of hot metal

VOC

Stack ID, associated equipment	Type of fuel combusted at the equipment	VOC emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	0
	Natural gas	5.5
	Combination gas (a mix of natural gas and blast furnace gas)	0 X Usage of BFG (MMSCF)+ 5.5 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	0
	Natural Gas	5.5
	Combination gas (a mix of natural gas and blast furnace gas)	0 X Usage of BFG (MMSCF)+ 5.5 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	VOC emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.00922	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.00922	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.00234	pound/ton of slag processed
Slag Granulator/Pelletizer	0.001	pound/ton of slag processed
171, Casthouse fugitive emissions	0.0009	pound/ton of hot metal

Pb

Stack ID, associated equipment	Type of fuel combusted at the equipment	Pb emissions factors (pound/MMSCF of fuel)
170, No.7 Blast Furnace Stoves	Blast furnace gas	0.0000667
	Natural gas	0.00046
	Combination gas (a mix of natural gas and blast furnace gas)	0.0000667 X Usage of BFG (MMSCF)+ 0.00046 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)
134, No.5 Boiler House	Blast Furnace Gas	0.0000667
	Natural Gas	0.00046
	Combination gas (a mix of natural gas and blast furnace gas)	0.0000667 X Usage of BFG (MMSCF)+ 0.00046 X Usage of NG (MMSCF) / Total usage of BFG and NG (MMSCF)

Stack ID, associated equipment	Pb emissions factors	Units
167, Casthouse No.7 Blast Furnace east baghouse	0.0000024	pound/ton of hot metal
166, Casthouse No.7 Blast Furnace west baghouse	0.00000126	pound/ton of hot metal
Slag pit operation at No.7 Blast Furnace	0.0000036	pound/ton of slag processed
Slag Granulator/Pelletizer	0.000001	pound/ton of slag processed
171, Casthouse fugitive emissions	0.00000108	pound/ton of hot metal

Pulverized Coal Injection Plant emission points:

PM

Stack ID, associated equipment	PM emissions factors	Units
185, Coal transfer baghouse A	0.00056	pound/ton of coal
186, Coal storage baghouse C	0.00078	pound/ton of coal
187, Coal pulverizer baghouse D	0.99	pound/hour
188, Coal pulverizer baghouse E	0.99	pound/hour
189, Coal storage baghouse F	0.000818	pound/ton of coal
190, Coal storage baghouse G	0.000818	pound/ton of coal
192, Coal unloading system	0.003	pound/ton of coal

PM_{10} (Filterable and Condensable)

Stack ID, associated equipment	PM_{10} emissions factors	Units
185, Coal transfer baghouse A	0.00056	pound/ton of coal
186, Coal storage baghouse C	0.00078	pound/ton of coal
187, Coal pulverizer baghouse D	0.99	pound/hour
188, Coal pulverizer baghouse E	0.99	pound/hour
189, Coal storage baghouse F	0.000818	pound/ton of coal
190, Coal storage baghouse G	0.000818	pound/ton of coal
192, Coal unloading system	0.0015	pound/ton of coal

No.1 Lime Plant emission points:

PM

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.0019

Stack ID, associated equipment	PM emissions factors	Units
47, Lime plant storage silo baghouse	5.53	pound/hour
45 and 49, No.1 and No.2 Lime Kiln baghouses (combined)	7.149	pound/hour
46, Lime plant fugitive control micro-pulse baghouse	0.007	pound/ton of lime
48, Lime plant truck loadout baghouse	0.01	pound/ton of lime

PM_{10} (Filterable and Condensable)

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM_{10} emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.0608

Stack ID, associated equipment	PM_{10} emissions factors	Units
47, Lime plant storage silo baghouse	5.53	pound/hour
45 and 49, No.1 and No.2 Lime Kiln baghouses (combined)	8.0	pound/hour
46, Lime plant fugitive control micro-pulse baghouse	0.007	pound/ton of lime
48, Lime plant truck loadout baghouse	0.0048	pound/ton of lime

SO_2

Stack ID, associated equipment	Type of fuel combusted at the equipment	SO_2 emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.6

CO

Stack ID, associated equipment	Type of fuel combusted at the equipment	CO emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	84

Stack ID, associated equipment	CO emissions factors	Units
45 and 49, No.1 and No.2 Lime Kiln baghouses	2.0	pound/ton of lime

NO_X

Stack ID, associated equipment	Type of fuel combusted at the equipment	NO_X emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	104

VOC

Stack ID, associated equipment	Type of fuel combusted at the equipment	VOC emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	5.5

Pb

Stack ID, associated equipment	Type of fuel combusted at the equipment	Pb emissions factors (pound/MMSCF of fuel)
45 and 49, No.1 and No.2 Lime Kiln baghouses	Natural gas	0.00000368

Stack ID, associated equipment	Pb emissions factors	Units
47, Lime plant storage silo baghouse	0.00000595	pound/ton of lime
45 and 49, No.1 and No.2 Lime Kiln baghouses	0.000060568	pound/ton of lime from each kiln
48, Lime plant truck loadout baghouse	0.00000085	pound/ton of lime

No.2 BOF shop emission points:

PM

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	1.9
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	1.9

Stack ID, associated equipment	PM emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.0046	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.027	pound/ton of steel
152, Charge Aisle and reloading desulfurization (hot metal station) baghouse	0.026	pound/ton of molten iron handled
150, Truck and ladle hopper baghouse	0.01	pound/ton of flux
151, Flux storage batch baghouse	0.007	pound/ton of flux
153, No.2 BOF Roof Monitor	0.03	pound/ton of steel
158, No.2 BOF Caster Roof Monitor	0.0035	pound/ton of slabs

PM_{10} (Filterable and Condensable)

Stack ID, associated equipment	Type of fuel combusted at the equipment	PM_{10} emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	7.6
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	7.6

Stack ID, associated equipment	PM_{10} emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.057	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.0064	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.028	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.0213	pound/ton of molten iron handled
150, Truck and ladle hopper baghouse	0.011	pound/ton of flux
151, Flux storage batch baghouse	0.0071	pound/ton of flux
153, No.2 BOF Roof Monitor	0.01866	pound/ton of steel
158, No.2 BOF Caster Roof Monitor	0.0015	pound/ton of slabs

SO_2

Stack ID, associated equipment	Type of fuel combusted at the equipment	SO_2 emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.6
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.6

Stack ID, associated equipment	SO_2 emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.07	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.07	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.025	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.014	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.0094	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.0004	pound/ton of steel

CO

Stack ID, associated equipment	Type of fuel combusted at the equipment	CO emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	84
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	84

Stack ID, associated equipment	CO emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	13.55	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	13.55	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.042	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.139	pound/ton of steel
Gas Cleaning System	0.022	pound/ton of steel
153, No.2 BOF Roof Monitor	0.0042	pound/ton of steel

NO_x

Stack ID, associated equipment	Type of fuel combusted at the equipment	NO_x emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	100
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	100

Stack ID, associated equipment	NO_x emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.08	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.08	pound/ton of steel
154, Ladle metallurgy facility station baghouse	0.003	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.02	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.0024	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.0006	pound/ton of steel

VOC

Stack ID, associated equipment	Type of fuel combusted at the equipment	VOC emissions factors (pound/MMSCF of fuel)
147, No.10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	5.5
148, No.20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	5.5

Stack ID, associated equipment	VOC emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.001	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.001	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.005	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.001	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.00015	pound/ton of steel
158, No.2 BOF Caster Roof Monitor	0.002	pound/ton of slabs

Pb

Stack ID, associated equipment	Type of fuel combusted at the equipment	Pb emissions factors (pound/MMSCF of fuel)
147, No. 10 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.00046
148, No. 20 Basic Oxygen Furnace, Flare stack ignitors	Natural gas	0.00046

Stack ID, associated equipment	Pb emissions factors	Units
147, No.10 Basic Oxygen Furnace scrubber	0.00011	pound/ton of steel
148, No.20 Basic Oxygen Furnace scrubber	0.00011	pound/ton of steel
154, Ladle metallurgy facility station baghouse	4 E –06	pound/ton of steel
149, Secondary ventilation system for No.2 BOF shop scrubber	0.00013	pound/ton of steel
152, Charge Aisle and Reladling desulfurization (hot metal station) baghouse	0.000001881	pound/ton of molten iron handled
153, No.2 BOF Roof Monitor	0.000023	pound/ton of steel

No.4 BOF shop emission points:

PM

Stack ID, associated equipment	PM emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.171	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	22.3	pound/hour
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.00512	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.00512	pound/ton of hot metal
32, RHOB condensers stack	0.0004	pound/ton of steel
33, RHOB material handling stack	0.002	pound/ton of steel
28, Furnace additive bin loading	0.001	pound/ton of alloys
31, Torch cut	0.0035	pound/ton of steel
35, Furnace additive hopper house	0.001	pound/ton of alloys
29, No.4 BOF Roof Monitor	0.03	pound/ton of steel

PM_{10} (Filterable and Condensable)

Stack ID, associated equipment	PM_{10} emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.177	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	23.74	pound/hour
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.017	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.017	pound/ton of hot metal
32, RHOB condensers stack	0.0002	pound/ton of steel
33, RHOB material handling stack	0.002	pound/ton of steel
28, Furnace additive bin loading	0.001	pound/ton of alloys
31, Torch cut	0.002025	pound/ton of steel
35, Furnace additive hopper house	0.001	pound/ton of alloys
29, No.4 BOF Roof Monitor	0.0183	pound/ton of steel

SO_2

Stack ID, associated equipment	SO_2 emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.001	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.001	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.0094	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.0094	pound/ton of hot metal
29, No.4 BOF Roof Monitor	0.00003	pound/ton of steel

CO

Stack ID, associated equipment	CO emissions factors	Units
38, No.4 BOF shop off gas scrubber	8.031	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.139	pound/ton of steel
32, RHOB condensers stack	0.0214	pound/ton of steel
Gas Cleaning System 4 BOF	0.047	pound/ton of steel
Gas Cleaning System 4BOF RHOB	0.0925	pound/ton of steel
29, No.4 BOF Roof Monitor	0.0042	pound/ton of steel

NO_x

Stack ID, associated equipment	NO_x emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.08	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.02	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.0024	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.0024	pound/ton of hot metal
29, No.4 BOF Roof Monitor	0.0006	pound/ton of steel

VOC

Stack ID, associated equipment	VOC emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.001	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.005	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	0.001	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	0.001	pound/ton of hot metal
31, Torch cut	0.002	pound/ton of steel
29, No.4 BOF Roof Monitor	0.00015	pound/ton of steel

Pb

Stack ID, associated equipment	Pb emissions factors	Units
38, No.4 BOF shop off gas scrubber	0.001989	pound/ton of steel
37, Secondary ventilation system for No.4 BOF shop baghouse	0.000054	pound/ton of steel
26, Reladling and desulfurization (hot metal station) baghouse (North)	9.4 E -07	pound/ton of hot metal
27, Reladling and desulfurization (hot metal station) baghouse (South)	9.4 E -07	pound/ton of hot metal
32, RHOB condensers stack	0.000032	pound/ton of steel
33, RHOB material handling stack	6.0 E -07	pound/ton of steel
29, No.4 BOF Roof Monitor	0.000038	pound/ton of steel

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
PM_{10}
(All Additional Hot Metal Through No. 2 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor Filterable	Emission Factor Condensible	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
										(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	30.10		30.100	lb/hr	N/A	30.100	4.35	0.9930	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	289	hours	19.30		19.300	lb/hr	N/A	19.300	2.79	0.6367	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.42		0.420	lb/ton	95.00%	0.021	8.11	1.8522	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.10		0.10	lb/ton	99.90%	0.0001	0.01	0.0034	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.04		0.04	lb/ton	98.00%	0.0008	0.12	0.0271	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.05		0.05	lb/ton	99.00%	0.0005	0.32	0.0739	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.031		0.031	lb/ton	N/A	0.0310	1.26	0.2885	Clean water quench @ 250 mg/l TDS
	Slag Granulator Operations	146,341	slag	0.087		0.0870	lb/ton	N/A	0.0870	6.37	1.4534	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.28		0.28	lb/ton	99.80%	0.00056	0.10	0.0239	T-089-6577-00316, Appendix A
	Coal Storage Baghouse C	373,155	coal	0.39		0.39	lb/ton	99.80%	0.00078	0.15	0.0332	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse D	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse E	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Storage Baghouse F	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Storage Baghouse G	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Unloading	373,155	coal	0.010		0.01	lb/ton	85.00%	0.0015	0.28	0.0639	T-089-6577-00316, Appendix A
Lime Plant	Silo Baghouses	200.0	hours	5.53		5.53	lb/hr	N/A	5.53	0.55	0.1263	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	200.0	hours	3.575	**0.425**	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	200.0	hours	3.575	**0.425**	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.35		0.35	lb/ton	98.00%	0.007	0.18	0.0402	T-089-6577-00316, Appendix A
	Truck Loadout Baghouse	50,335	lime	2.40		2.40	lb/ton	99.80%	0.0048	0.12	0.0276	T-089-6577-00316, Appendix A
No. 2 BOF	10 Furnace Stack	454,482	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	12.82	2.9275	T-089-6577-00316, Appendix A
	20 Furnace Stack	454,482	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	12.82	2.9275	T-089-6577-00316, Appendix A
	Caster Roof Monitor	908,965	slabs	0.0015		0.0015	lb/ton		0.0015	0.68	0.1556	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	908,965	molten steel	0.4600		0.46	lb/ton	98.60%	0.0064	2.93	0.6682	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	908,965	molten steel	1.85		1.8500	lb/ton	98.50%	0.028	12.61	2.8794	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	908,965	hot metal	0.71		0.710	lb/ton	97.00%	0.0213	9.68	2.2102	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	58,829	flux	1.06		1.06	lb/ton	99.00%	0.011	0.31	0.0712	T-089-6577-00316, Appendix A
	Flux Storage and Batch Baghouse	58,829	flux	0.71		0.71	lb/ton	99.00%	0.0071	0.21	0.0477	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.051	0.0112	0.0622	lb/ton	70.00%	0.01866	8.48	1.9362	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	0	molten steel	13.60	1.500	15.100	lb/ton	98.83%	0.177	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	0	hours	23.74		23.74	lb/hr	N/A	23.74	0.00	0.0000	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	0	hot metal	1.15		1.150	lb/ton	98.50%	0.017	0.00	0.0000	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	0	hot metal	1.15		1.150	lb/ton	98.50%	0.017	0.00	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	0	molten steel	0.050	0.0110	0.0610	lb/ton	70.00%	0.0183	0.00	0.0000	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	0	lime alloys	0.0010		0.0010	lb/ton		0.001	0.00	0.0000	T-089-6577-00316, Appendix A
	Torch Cut	0	molten steel	0.002025		0.002025	lb/ton		0.002025	0.00	0.0000	T-089-6577-00316, Appendix A
	RHOB Condensers	0	molten steel	0.10		0.10	lb/ton	99.80%	0.0002	0.00	0.0000	T-089-6577-00316, Appendix A
	RHOB Material Handling	0	molten steel	0.10		0.10	lb/ton	98.00%	0.002	0.00	0.0000	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	0	lime alloys	0.001		0.100	lb/ton		0.100	0.00	0.0000	T-089-6577-00316, Appendix A

Conversions	
Pound per ton	2,000
Hours per year	8,760

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
PM_{10}
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor Filterable	Emission Factor Condensible	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
										(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	30.10		30.100	lb/hr	N/A	30.100	4.35	0.9930	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	289	hours	19.30		19.300	lb/hr	N/A	19.300	2.79	0.6367	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.42		0.420	lb/ton	95.00%	0.021	8.11	1.8522	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.10		0.10	lb/ton	99.90%	0.0001	0.01	0.0034	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.04		0.04	lb/ton	98.00%	0.0008	0.12	0.0271	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.05		0.05	lb/ton	99.00%	0.0005	0.32	0.0739	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.031		0.031	lb/ton	N/A	0.0310	1.26	0.2885	Clean water quench @ 250 mg/l TDS
	Slag Granulator Operations	146,341	slag	0.087		0.0870	lb/ton	N/A	0.0870	6.37	1.4534	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.28		0.28	lb/ton	99.80%	0.00056	0.10	0.0239	T-089-6577-00316, Appendix A
	Coal Storage Baghouse C	373,155	coal	0.39		0.39	lb/ton	99.80%	0.00078	0.15	0.0332	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse D	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse E	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Storage Baghouse F	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Storage Baghouse G	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Unloading	373,155	coal	0.010		0.01	lb/ton	85.00%	0.0015	0.28	0.0639	T-089-6577-00316, Appendix A
Lime Plant	Silo Baghouses	200.0	hours	5.53		5.53	lb/hr	N/A	5.53	0.55	0.1263	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	200.0	hours	3.575	0.425	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	200.0	hours	3.575	0.425	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.35		0.35	lb/ton	98.00%	0.007	0.18	0.0402	T-089-6577-00316, Appendix A
	Truck Loadout Baghouse	50,335	lime	2.40		2.40	lb/ton	99.80%	0.0048	0.12	0.0276	T-089-6577-00316, Appendix A
No. 2 BOF	10 Furnace Stack	0	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.0015		0.0015	lb/ton		0.0015	0.00	0.0000	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	0	molten steel	0.4600		0.46	lb/ton	98.60%	0.0064	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	1.85		1.8500	lb/ton	98.50%	0.028	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.71		0.710	lb/ton	97.00%	0.0213	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	1.06		1.06	lb/ton	99.00%	0.011	0.00	0.0000	T-089-6577-00316, Appendix A
	Flux Storage and Batch Baghouse	0	flux	0.71		0.71	lb/ton	99.00%	0.0071	0.00	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	0	molten steel	0.051	0.0112	0.0622	lb/ton	70.00%	0.01866	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	13.60	0.023	13.623	lb/ton	98.83%	0.159	72.44	16.5387	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	363	hours	23.74		23.74	lb/hr	N/A	23.74	4.30	0.9824	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	1.15		1.150	lb/ton	98.50%	0.017	3.33	0.7607	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	1.15		1.150	lb/ton	98.50%	0.017	3.33	0.7607	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.050	0.0110	0.0610	lb/ton	70.00%	0.0183	8.32	1.8989	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.0010		0.0010	lb/ton		0.001	0.03	0.0067	T-089-6577-00316, Appendix A
	Torch Cut	908,965	molten steel	0.002025		0.002025	lb/ton		0.002025	0.92	0.2101	T-089-6577-00316, Appendix A
	RHOB Condensers	908,965	molten steel	0.10		0.10	lb/ton	99.80%	0.0002	0.09	0.0208	T-089-6577-00316, Appendix A
	RHOB Material Handling	908,965	molten steel	0.10		0.10	lb/ton	98.00%	0.002	0.91	0.2075	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.001		0.100	lb/ton		0.100	2.94	0.6716	T-089-6577-00316, Appendix A

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
PARTICULATE MATTER
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	22.00	lb/hr	N/A	22.00	3.18	0.7258	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	289	hours	11.22	lb/hr	N/A	11.22	1.62	0.3702	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.60	lb/ton	95.00%	0.03	11.59	2.6460	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.20	lb/ton	99.90%	0.0002	0.03	0.0068	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.09	lb/ton	99.00%	0.0009	0.13	0.0305	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.10	lb/ton	99.50%	0.0005	0.32	0.0739	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.045	lb/ton	N/A	0.0450	1.83	0.4188	Clean water quench @ 250 mg/l TDS
	Slag Granulator Operations	146,341	slag	0.087	lb/ton	N/A	0.087	6.37	1.4534	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.56	lb/ton	99.90%	0.00056	0.10	0.0239	T-089-6577-00316, Appendix A
	Coal Storage Baghouse C	373,155	coal	0.78	lb/ton	99.90%	0.00078	0.15	0.0332	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse D	289	hours	0.99	lb/hr	N/A	0.99	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse E	289	hours	0.99	lb/hr	N/A	0.99	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Storage Baghouse F	373,155	coal	0.818	lb/ton	99.90%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Storage Baghouse G	373,155	coal	0.818	lb/ton	99.90%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Unloading	373,155	coal	0.010	lb/ton	85.00%	0.0015	0.28	0.0639	T-089-6577-00316, Appendix A
Lime Plant	Silo Baghouses	200.0	hours	5.53	lb/hr	N/A	5.5300	0.55	0.1263	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	200.0	hours	3.575	lb/hr	N/A	3.5745	0.36	0.0816	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	200.0	hours	3.575	lb/hr	N/A	3.5745	0.36	0.0816	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.70	lb/ton	99.00%	0.007	0.18	0.0402	T-089-6577-00316, Appendix A
	Truck Loadout Baghouse	50,335	lime	5.00	lb/ton	99.80%	0.01	0.25	0.0575	T-089-6577-00316, Appendix A
No. 2 BOF	10 Furnace Stack	0	molten steel	28.50	lb/ton	99.80%	0.057	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	28.50	lb/ton	99.80%	0.057	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.0035	lb/ton	N/A	0.0035	0.00	0.0000	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	0	molten steel	0.6636	lb/ton	99.30%	0.0046	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	3.32	lb/ton	99.20%	0.027	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	1.28	lb/ton	98.00%	0.026	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	2.13	lb/ton	99.50%	0.01	0.00	0.0000	T-089-6577-00316, Appendix A
	Flux Storage and Batch Baghouse	0	flux	1.42	lb/ton	99.50%	0.007	0.00	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	0	molten steel	0.10	lb/ton	70.00%	0.03	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	28.50	lb/ton	99.40%	0.171	77.72	17.7435	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	363	hours	22.30	lb/hr	N/A	22.3000	4.04	0.9228	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	1.28	lb/ton	99.60%	0.00512	0.99	0.2258	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	1.28	lb/ton	99.60%	0.00512	0.99	0.2258	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.100	lb/ton	70.00%	0.030	13.63	3.1129	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.001	lb/ton		0.001	0.03	0.0067	T-089-6577-00316, Appendix A
	Torch Cut	908,965	molten steel	0.0035	lb/ton		0.0035	1.59	0.3632	T-089-6577-00316, Appendix A
	RHOB Condensers	908,965	molten steel	0.20	lb/ton	99.80%	0.0004	0.18	0.0415	T-089-6577-00316, Appendix A
	RHOB Material Handling	908,965	molten steel	0.20	lb/ton	99.00%	0.002	0.91	0.2075	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.001	lb/ton		0.001	0.03	0.0067	T-089-6577-00316, Appendix A

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
SULFUR DIOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Annual Change in Emissions		Source of Emission Factor
						(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.1774	lb/ton	34.27	7.8232	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.1774	lb/ton	34.27	7.8232	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.01	lb/ton	3.86	0.8820	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.578	lb/ton	23.56	5.3793	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.100	lb/ton	7.32	1.6706	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 2 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.070	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	0.070	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.000	lb/ton	0.00	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.025	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.014	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.0094	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0004	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.001	lb/ton	0.45	0.1038	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.001	lb/ton	0.45	0.1038	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.0094	lb/ton	1.82	0.4145	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.0094	lb/ton	1.82	0.4145	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.00003	lb/ton	0.01	0.0031	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
CARBON MONOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.5600	lb/ton		0.5600	108.17	24.6956	July 25, 2007 Modification Request
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	2.2200	lb/ton		2.2200	428.80	97.9005	July 25, 2007 Modification Request
	Casthouse Fugitives	772,620	hot metal	0.012	lb/ton		0.012	4.64	1.0584	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.066	lb/ton		0.066	2.69	0.6142	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.066	lb/ton		0.066	4.83	1.1026	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr		0.000	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	2.000	lb/ton		2.000	50.34	11.4921	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	50,335	lime	2.000	lb/ton		2.000	50.34	11.4921	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	139.00	lb/ton	90.25%	13.55	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	139.00	lb/ton	90.25%	13.55	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.042	lb/ton		0.042	0.00	0.0000	T-089-6577-00316, Appendix A
	Gas Cleaning System	0	molten steel	0.022	lb/ton		0.022	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.139	lb/ton		0.139	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0042	lb/ton		0.0042	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	139	lb/ton	94.22%	8.031	3,650.14	833.3650	T-089-6577-00316, Appendix A
	Gas Cleaning System	908,965	molten steel	0.0470	lb/ton		0.0470	21.36	4.8769	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.139	lb/ton		0.139	63.17	14.4231	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Roof Monitor	908,965	molten steel	0.0042	lb/ton		0.0042	1.90	0.4327	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	1.07	lb/ton	98.00%	0.0214	9.73	2.2205	T-089-6577-00316, Appendix A
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	RHOB Gas Cleaning System	908,965	molten steel	0.0925	lb/ton		0.0925	42.04	9.5981	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable

ARCELOR MITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
NITROGEN OXIDES
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Annual Change in Emissions		Source of Emission Factor
						(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.0248	lb/ton	4.79	1.0937	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.0248	lb/ton	4.79	1.0937	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.0012	lb/ton	0.46	0.1058	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton	0.00	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.0248	lb/ton	1.01	0.2308	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.0100	lb/ton	0.73	0.1671	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 2 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.08	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	0.08	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.0000	lb/ton	0.00	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.003	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.020	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.0024	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0006	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.080	lb/ton	36.36	8.3010	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.020	lb/ton	9.09	2.0753	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.0024	lb/ton	0.46	0.1058	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.0024	lb/ton	0.46	0.1058	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.0006	lb/ton	0.27	0.0623	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
VOC
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Annual Change in Emissions		Source of Emission Factor
						(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.00922	lb/ton	1.78	0.4064	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.00922	lb/ton	1.78	0.4064	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.0009	lb/ton	0.35	0.0794	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton	0.00	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.00234	lb/ton	0.10	0.0218	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.00100	lb/ton	0.07	0.0167	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 2 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.001	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	0.001	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.002	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	0	molten steel	0.000	lb/ton	0.00	0.0000	Not Applicable
	Secondary, Ventilation System Scrubber	0	molten steel	0.005	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.001	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.00015	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.001	lb/ton	0.45	0.1038	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.005	lb/ton	2.27	0.5188	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.001	lb/ton	0.19	0.0441	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.001	lb/ton	0.19	0.0441	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.00015	lb/ton	0.07	0.0156	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.002	lb/ton	0.91	0.2075	T-089-6577-00316, Appendix A
	RHOB Condensers	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SSM #089-21207-00316 and SPM #089-22044-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
LEAD
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.000126	lb/ton	98.10%	0.000002	0.0005	0.0001	July 25, 2007 Modification Request
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.000126	lb/ton	99.00%	0.00000126	0.0002	0.0001	July 25, 2007 Modification Request
	Casthouse Fugitives	772,620	hot metal	0.0000216	lb/ton	95.00%	0.00000108	0.0004	0.0001	July 25, 2007 Modification Request
	Coke Transfer Station	296,686	coke	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.0000036	lb/ton		0.0000036	0.0001	0.0000	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.000001	lb/ton		0.000001	0.0001	0.0000	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000425	lb/ton	98.60%	0.00000595	0.0001	0.0000	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	50,335	lime	0.007571	lb/ton	99.20%	0.000060568	0.0015	0.0003	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	50,335	lime	0.007571	lb/ton	99.20%	0.000060568	0.0015	0.0003	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.00	lb/ton	98.00%	0.000000	0.0000	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000425	lb/ton	99.80%	0.000001	0.0000	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.0275	lb/ton	99.60%	0.000110	0.0000	0.0000	July 25, 2007 Modification Request
	20 Furnace Stack	0	molten steel	0.0275	lb/ton	99.60%	0.000110	0.0000	0.0000	July 25, 2007 Modification Request
	Caster Roof Monitor	0	slabs	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.0006636	lb/ton	99.40%	0.000004	0.0000	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.00065	lb/ton	80.00%	0.00013	0.0000	0.0000	July 25, 2007 Modification Request
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.0000627	lb/ton	97.00%	0.00000188	0.0000	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0000772	lb/ton	70.00%	0.000023	0.0000	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.1530	lb/ton	98.70%	0.001989	0.9040	0.2064	July 25, 2007 Modification Request
	Secondary Vent System Baghouse	908,965	molten steel	0.002450	lb/ton	97.80%	0.000054	0.0245	0.0056	July 25, 2007 Modification Request
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.0000627	lb/ton	98.50%	0.00000094	0.0002	0.0000	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.0000627	lb/ton	98.50%	0.00000094	0.0002	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.000127	lb/ton	70.00%	0.000038	0.0173	0.0040	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	0.0000322	lb/ton		0.000032	0.0146	0.0033	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00003	lb/ton	98.00%	0.0000006	0.0003	0.0001	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
PM_{10}
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	7.60	lb/mmcf			1.836	0.4191	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	4.51	lb/mmcf			33.048	7.5452	T-089-6577-00316, Appendix A
						Total Stoves		34.883	7.9643	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf			0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf			0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	7.60	lb/mmcf			0.060	0.0136	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	4.71	lb/mmcf			66.133	15.0989	T-089-6577-00316, Appendix A
						Total Boiler House		66.193	15.1125	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	0.0608	lb/mmcf		0.0608	0.004	0.0009	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	0.0608	lb/mmcf		0.0608	0.004	0.0009	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
PARTICULATE MATTER
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	1.90	lb/mmcf		1.90	0.459	0.1048	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	0.68	lb/mmcf		0.68	4.983	1.1376	T-089-6577-00316, Appendix A
						Total Stoves		5.442	1.242	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf		1.90	0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf		1.90	0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	1.90	lb/mmcf		1.90	0.015	0.0034	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	0.68	lb/mmcf		0.68	9.548	2.1799	T-089-6577-00316, Appendix A
						Total Boiler House		9.563	2.183	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	1.90	lb/mmcf	99.90%	0.0019	0.000	0.0000	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	1.90	lb/mmcf	99.90%	0.0019	0.000	0.0000	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
SULFUR DIOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	0.60	lb/mmcf		0.145	0.0331	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	14.70	lb/mmcf		107.717	24.5929	T-089-6577-00316, Appendix A
						Total Stoves	107.862	24.626	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	0.60	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	0.60	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	0.60	lb/mmcf		0.005	0.0011	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	14.70	lb/mmcf		206.403	47.1239	T-089-6577-00316, Appendix A
						Total Boiler House	206.407	47.125	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	0.60	lb/mmcf		0.037	0.0085	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	0.60	lb/mmcf		0.037	0.0085	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
CARBON MONOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	84.00	lb/mmcf		20.288	4.6319	AP-42
	Stoves (BFG)	14,655.4	mmcf	579.50	lb/mmcf		4,246	969	2005 Stack Test
						Total Stoves	4,267	974	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	84.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	84.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	84.00	lb/mmcf		0.658	0.1502	AP-42
	Boiler House (BFG)	28,082.0	mmcf	13.70	lb/mmcf		192.362	43.9182	AIRS
						Total Boiler House	193.020	44.068	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	84.00	lb/mmcf		5.187	1.1842	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	84.00	lb/mmcf		5.187	1.1842	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
NITROGEN OXIDES
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	104.00	lb/mmcf		25.118	5.7347	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	23.00	lb/mmcf		168.537	38.4787	T-089-6577-00316, Appendix A
						Total Stoves	193.655	44.213	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	100.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	100.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	104.00	lb/mmcf		0.815	0.1860	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	23.00	lb/mmcf		322.943	73.7313	T-089-6577-00316, Appendix A
						Total Boiler House	323.758	73.917	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	104.00	lb/mmcf		6.422	1.4662	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	104.00	lb/mmcf		6.422	1.4662	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
VOC
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	5.50	lb/mmcf		1.328	0.3033	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	0.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
						Total Stoves	1.328	0.303	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	5.50	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	5.50	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	5.50	lb/mmcf		0.043	0.0098	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	0.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
						Total Boiler House	0.043	0.010	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	5.50	lb/mmcf		0.340	0.0775	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	5.50	lb/mmcf		0.340	0.0775	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
LEAD
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	0.00046	lb/mmcf		0.00011	0.00003	July 25, 2007 Modification Request
	Stoves (BFG)	14,655.4	mmcf	0.0000667	lb/mmcf		0.00049	0.00011	July 25, 2007 Modification Request
						Total Stoves	0.00060	0.00014	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	0.00046	lb/mmcf		0.00000	0.00000	AP-42
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	0.00046	lb/mmcf		0.00000	0.00000	AIRS
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	0.00046	lb/mmcf		0.00000	0.00000	July 25, 2007 Modification Request
	Boiler House (BFG)	28,082.0	mmcf	0.0000667	lb/mmcf		0.00094	0.00021	July 25, 2007 Modification Request
						Total Boiler House	0.00094	0.00021	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	0.00046	lb/mmcf		0.00003	0.00001	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	0.00046	lb/mmcf		0.00003	0.00001	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CALCULATION OF ROAD PARTICULATE MATTER (TSP) EMISSIONS BY ROAD SEGMENT
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

PAVED ROADS

Road Segment ID	Material	Paved Road Segment Description	Silt (%)	Road Surface Silt Loading (g/m2)	Average Vehicle Weight (tons)	AP-42 TSP Emission Factor* (lb/VMT)	Additional Annual Traffic (VMT/yr)	Additional TSP Emissions (tons/yr)	Additional TSP Emissions (lbs/hr)
46P	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	1.3380	859	0.5749	0.1312
46P	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	1.3380	431	0.2884	0.0658
39P	No. 7 BF Slag	Rt. 76 Between Rt 56/71 and Rt. 74	7.4	0.24	22.5	0.4292	4,484	0.9623	0.2197
38P	No. 7 BF Slag	Rt. 56 bBetween Rt. 54 and Rt. 76	12.6	1.59	22.5	1.4490	2,405	1.7422	0.3978
7P	No. 7 BF Slag	Rt.71 S from Slag Quench Pits to Rt.71, Under Conveyor	3.4	25.76	20.0	7.4314	718	2.6692	0.6094
44P	No. 7 BF Slag	Rt. 71 Between New Coke Dump and West End of Rt. 75	15.4	1.98	20.0	1.4039	3,100	2.1763	0.4969
41P	No. 7 BF Slag	Rt.71 Between Rt.70 and New Coke Dump	14.3	0.12	20.0	0.2292	3,488	0.3998	0.0913
26P	No. 7 BF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.7931	3,034	1.2032	0.2747
24P	No. 7 BF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.4682	2,505	0.5863	0.1339
20P	No. 7 BF Slag	Rt.64 Between Propane Tank Farm Road and Rt.60	9.0	1.04	20.0	0.9213	7,864	3.6226	0.8271
19P	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.2292	6,097	0.6988	0.1595
99P	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Plant Gate	1.3	0.12	20.0	0.2292	2,363	0.2708	0.0618
34P	No. 4 BOF Scrap	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	1.0405	0	0.0000	0.0000
1P	No. 4 BOF Scrap	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	1.4595	0	0.0000	0.0000
10P	No. 4 BOF Scrap	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.4424	0	0.0000	0.0000
11P	No. 4 BOF Scrap	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	1.0733	0	0.0000	0.0000
30P	No. 4 BOF Scrap	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.6736	0	0.0000	0.0000
32P	No. 4 BOF Scrap	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.9734	0	0.0000	0.0000
64P	No. 4 BOF Scrap	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	1.7095	0	0.0000	0.0000
34P	No. 4 BOF Alloys	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	1.0405	0	0.0000	0.0000
1P	No. 4 BOF Alloys	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	1.4595	0	0.0000	0.0000
10P	No. 4 BOF Alloys	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.4424	0	0.0000	0.0000
11P	No. 4 BOF Alloys	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	1.0733	0	0.0000	0.0000
30P	No. 4 BOF Alloys	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.6736	0	0.0000	0.0000
32P	No. 4 BOF Alloys	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.9734	0	0.0000	0.0000
64P	No. 4 BOF Alloys	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	1.7095	0	0.0000	0.0000
26P	No. 4 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.7931	0	0.0000	0.0000
24P	No. 4 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.4682	0	0.0000	0.0000
20P	No. 4 BOF Slag	Rt.64 Between Propane Tank Farm Road and Rt.60	9.0	1.04	20.0	0.9213	0	0.0000	0.0000
19P	No. 4 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.2292	0	0.0000	0.0000
2P	No. 2 BOF Scrap	Rt.30	15.2	2.75	20.0	1.7346	2,000	1.7345	0.3960
8P	No. 2 BOF Scrap	Rt.21	17.1	0.85	20.0	0.8121	3,201	1.2997	0.2967
2P	No. 2 BOF Alloys	Rt.30	15.2	2.75	20.0	1.7346	567	0.4920	0.1123
8P	No. 2 BOF Alloys	Rt.21	17.1	0.85	20.0	0.8121	908	0.3687	0.0842
26P	No. 2 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.7931	2,054	0.8147	0.1860
24P	No. 2 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.4682	1,696	0.3970	0.0906
20P	No. 2 BOF Slag	Rt.64 Between Propane Tank Farm Road and Rt.60	9.0	1.04	20.0	0.9213	5,325	2.4529	0.5600
19P	No. 2 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.2292	4,128	0.4731	0.1080
33P	No. 2 BOF Lime	Rt. 56 Between Lime Plant North Entrance and Rt.41	20.6	4.64	30.0	4.4800	211	0.4732	0.1080
37P	No. 2 BOF Lime	Rt. 41 (Chisom Trail) Between Rt.56 and Rt. 43	12.8	0.12	30.0	0.4211	1,325	0.2789	0.0637
9P	No. 2 BOF Lime	Rt.43 Between Rt.40 and Rt.23 at Railroad Tracks	26.2	2.04	30.0	2.6305	299	0.3934	0.0898
8P	No. 2 BOF Lime	Rt.21	17.1	0.85	30.0	1.4919	748	0.5579	0.1274
							Paved Road Totals	24.9307	5.6919

*AP-42, 5th Edition, Equation (1), page 13.2.1-4 (October 2002)

TABLE 4-2B
ARCELOR MITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
ADDITION OF A FOURTH STOVE AT NO. 7 BLAST FURNACE
CONTEMPORANEOUS EMISSIONS CHANGES
ALL INCREASED HOT METAL USED AT NO. 4 BOF

Increases Attendant to Project	Criteria Air Pollutants Emission Rates (tons/yr)						
Facility	**PM**	**PM_{10}**	**SO_2**	**CO**	**NOx**	**VOC**	**Pb**
Blast Furnace No. 7	28.6841	56.9574	187.5734	4813.1185	204.4306	5.3091	0.0018
PCI	1.1212	1.1212	0.0000	0.0000	0.0000	0.0000	0.0000
Lime Plant	1.6960	1.6574	0.0741	111.0448	12.8440	0.6793	0.0033
No. 2 BOF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. 4 BOF	100.1110	96.6143	4.5539	3767.6542	46.6481	4.0903	0.9610
No. 5 Boiler House	9.5628	66.1926	206.4074	193.0196	323.7575	0.0431	0.0009
Fugitive Emissions	25.3648	5.2986					
Shutdown of No. 2A Blooming Mill/21-Inch Bar Mill	(5.0224)	(4.9861)	(0.3698)	(52.0170)	(116.3382)	(34.4444)	(0.0533)
Project Emissions	**161.52**	**222.86**	**398.24**	**8832.82**	**471.34**	**(24.32)**	**0.91**

Contemporaneous and Creditable Changes			Criteria Air Pollutants Emission Rates (tons/yr)						
Facility	**Shutdown/ Modification Year**	**Startup Year**	**PM**	**PM10**	**SO2**	**CO**	**NOx**	**VOC**	**Pb**
No. 4 AC Station	1999		(605.80)	(605.80)	(1,355.50)	(202.50)	(3,284.00)	(20.20)	(0.36)
80-Inch No. 4 WBF Project	2001		(0.14)	(0.14)	(0.01)	1.08	(51.74)	(0.10)	
EAF Vacuum Degasser		2001	1.40	1.40	0.10	25.10	18.20	1.00	
No. 6 CGL		2001	6.10	6.10	0.50	5.43			
Slag Pits (curtailment)	2002		(402.98)	(197.00)	(287.04)	(42.71)	(12.32)	(1.16)	
Slag Granulation		2002	322.44	155.23	50.66	32.93	5.07	0.51	
Slag Pits (continued operation)*		2002	14.91	10.27	191.48	21.86	8.22	0.78	1.19E-03
EAF DRI		2002	8.68	5.84					
Contemporaneous and Creditable Emissions Changes			**(655.39)**	**(624.10)**	**(1,399.81)**	**(158.81)**	**(3,316.57)**	**(19.17)**	**(0.36)**
Net Emissions Changes			**(493.88)**	**(401.25)**	**(1,001.57)**	**8,674.01**	**(2,845.23)**	**(43.50)**	**0.55**

Project	Description
No. 4 AC Station	Shutdown in April 1999
80-Inch No. 4 WBF Project	Shutdown of two pusher furnaces and installation of No. 4 Walking Beam Furnace.
EAF Vacuum Degasser	Construction permit issued in March 1999.
No. 6 Continuous Coating Line	Construction permit issued in May 1999.
Slag Granulation/Pelletization	Installation reduced emissions by cooling and processing slag currently handled in the slag pits.
EAF Direct Reduced Iron System	Installation of system to handle Direct Reduced Iron at No. 1 EAF.

* The PTE for Slag Pits (continued operation) in 2002 has been adjusted based on the new slag throughput rate limit of 662,550 tons/yr.

Proposed Slag Pits Throughput (tons/yr)	**662,550**		**PM**	**PM10**	**SO2**	**CO**	**NOx**	**VOC**	**Pb**
Emission Factor (lbs/ton)			0.045	0.031	0.578	0.066	0.0248	0.0023	3.60E-06
PTE of Slag Pits (tons/yr)			14.91	10.27	191.48	21.86	8.22	0.78	1.19E-03

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
NET EMISSIONS CHANGES COMPARED TO NET SIGNIFICANT EMISSIONS at NO. 4 BOF

	Criteria Air Pollutants Emission Rates (tons/yr)						
	PM	**PM_{10}**	**SO_2**	**CO**	**NOx**	**VOC**	**Pb**
Net Emissions	161.52	222.86	398.24	8,832.82	471.34	(24.32)	0.91
Net Contemporaneous Emissions	(655.39)	(624.10)	(1,399.81)	(158.81)	(3,316.57)	(19.17)	(0.36)
Net Project Emissions Change	(493.88)	(401.25)	(1,001.57)	8,674.01	(2,845.23)	(43.50)	0.55
Net Significant Threshold	25	15	40	100	40	25	0.6

SPM #089-18491-00316
SUMMARY OF FUGITIVE DUST EMISSIONS
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

PAVED ROADS

Road Segment ID	Area Source ID	Material Silt	(%)	Road Surface Silt Loading (g/m^2)	Average Vehicle Weight (tons)	AP-42 PM_{10} Emission Factor* (lb/VMT)	Additional Annual Traffic (VMT/yr)	Additional PM_{10} Emissions (tons/yr)	Additional PM_{10} Emissions (lbs/hr)
46P	63	No. 7 BF Slag	16.3	1.40	22.5	0.2611	859	0.1122	0.0256
46P	63	No. 7 BF Slag	16.3	1.40	22.5	0.2611	431	0.0563	0.0128
39P	56	No. 7 BF Slag	7.4	0.24	22.5	0.0838	4,484	0.1878	0.0429
38P	40	No. 7 BF Slag	12.6	1.59	22.5	0.2827	2,405	0.3399	0.0776
7P	68	No. 7 BF Slag	3.4	25.76	20.0	1.4500	718	0.5208	0.1189
44P	69	No. 7 BF Slag	15.4	1.98	20.0	0.2739	3,100	0.4246	0.0969
41P	65	No. 7 BF Slag	14.3	0.12	20.0	0.0447	3,488	0.0780	0.0178
26P	39	No. 7 BF Slag	34.9	0.82	20.0	0.1548	3,034	0.2348	0.0536
24P	39	No. 7 BF Slag	13.8	0.37	20.0	0.0914	2,505	0.1144	0.0261
20P	39	No. 7 BF Slag	9.0	1.04	20.0	0.1798	7,864	0.7069	0.1614
19P	27	No. 7 BF Slag	1.3	0.12	20.0	0.0447	6,097	0.1363	0.0311
99P	8	No. 7 BF Slag	1.3	0.12	20.0	0.0447	2,363	0.0528	0.0121
34P	8	No. 4 BOF Scrap	18.4	1.25	20.0	0.2030	0	0.0000	0.0000
1P	12	No. 4 BOF Scrap	20.4	2.11	20.0	0.2848	0	0.0000	0.0000
10P	12	No. 4 BOF Scrap	13.7	0.34	20.0	0.0863	0	0.0000	0.0000
11P	24	No. 4 BOF Scrap	28.0	1.31	20.0	0.2094	0	0.0000	0.0000
30P	31	No. 4 BOF Scrap	10.7	0.64	20.0	0.1314	0	0.0000	0.0000
32P	31	No. 4 BOF Scrap	12.6	1.13	20.0	0.1899	0	0.0000	0.0000
64P	44	No. 4 BOF Scrap	13.3	2.69	20.0	0.3336	0	0.0000	0.0000
34P	8	No. 4 BOF Alloys	18.4	1.25	20.0	0.2030	0	0.0000	0.0000
1P	12	No. 4 BOF Alloys	20.4	2.11	20.0	0.2848	0	0.0000	0.0000
10P	12	No. 4 BOF Alloys	13.7	0.34	20.0	0.0863	0	0.0000	0.0000
11P	24	No. 4 BOF Alloys	28.0	1.31	20.0	0.2094	0	0.0000	0.0000
30P	31	No. 4 BOF Alloys	10.7	0.64	20.0	0.1314	0	0.0000	0.0000
32P	31	No. 4 BOF Alloys	12.6	1.13	20.0	0.1899	0	0.0000	0.0000
64P	44	No. 4 BOF Alloys	13.3	2.69	20.0	0.3336	0	0.0000	0.0000
26P	39	No. 4 BOF Slag	34.9	0.82	20.0	0.1548	0	0.0000	0.0000
24P	39	No. 4 BOF Slag	13.8	0.37	20.0	0.0914	0	0.0000	0.0000
20P	39	No. 4 BOF Slag	9.0	1.04	20.0	0.1798	0	0.0000	0.0000
19P	27	No. 4 BOF Slag	1.3	0.12	20.0	0.0447	0	0.0000	0.0000
2P	7	No. 2 BOF Scrap	15.2	2.75	20.0	0.3385	2,000	0.3384	0.0773
8P	11	No. 2 BOF Scrap	17.1	0.85	20.0	0.1585	3,201	0.2536	0.0579
2P	7	No. 2 BOF Alloys	15.2	2.75	20.0	0.3385	567	0.0960	0.0219
8P	11	No. 2 BOF Alloys	17.1	0.85	20.0	0.1585	908	0.0719	0.0164
26P	39	No. 2 BOF Slag	34.9	0.82	20.0	0.1548	2,054	0.1590	0.0363
24P	39	No. 2 BOF Slag	13.8	0.37	20.0	0.0914	1,696	0.0775	0.0177
20P	39	No. 2 BOF Slag	9.0	1.04	20.0	0.1798	5,325	0.4786	0.1093
19P	27	No. 2 BOF Slag	1.3	0.12	20.0	0.0447	4,128	0.0923	0.0211
33P	37	No. 2 BOF Lime	20.6	4.64	30.0	0.8742	211	0.0923	0.0211
37P	30,24	No. 2 BOF Lime	12.8	0.12	30.0	0.0822	1,325	0.0544	0.0124
9P	22	No. 2 BOF Lime	26.2	2.04	30.0	0.5133	299	0.0768	0.0175
8P	11	No. 2 BOF Lime	17.1	0.85	30.0	0.2911	748	0.1089	0.0249
							Paved Road Totals	4.8645	1.1106

MATERIAL HANDLING

Material Handling ID	Area Source ID	Material		Additional PM_{10} Emissions (tons/yr)	Additional PM_{10} Emissions (lbs/hr)
1M	30	Self-fluxing Pellets		0.0720	0.0164
2M		Limestone			
3M	37	Limestone		0.0182	0.0042
4M	38	Steelmaking Slag		0.1761	0.0402
5M	64	No. 7 BF Slag		0.1117	0.0255
6M	67	No. 7 BF Slag		0.0561	0.0128
Additional Material Handling Emissions				0.4340	0.0991

	(tons/yr)	(lbs/hr)
Total Paved Roads and Material Handling Emissions	5.2986	1.2097

SPM #089-18491-00316
CALCULATION OF ADDITIONAL VEHICLE MILES TRAVELED FOR TRUCK TRANSPORTATION OF MATERIALS
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF

Road Segment ID	Material	Additional Material Required (tons/yr)	Percent Hauled by Truck	Additional Material Hauled by Truck (tons/yr)	Net Weight (tons/vehicle)	Empty Vehicle Weight [Tare Weight] (tons/vehicle)	Average Vehicle Weight* (tons/vehicle)	No. of Additional Trucks per Year	Road Length (mi)	Increase in VMT** per Year	Remarks
46P	No. 7 BF Slag	189,040	100%	189,040	25	10	22.5	7,562	0.057	859	From Slag Granulator / Slag Pit to Storage
46P	No. 7 BF Slag	94,520	100%	94,520	25	10	22.5	3,781	0.057	431	Trucked to Dock 6 for water transportation
39P	No. 7 BF Slag	94,520	100%	94,520	25	10	22.5	3,781	0.593	4,484	
38P	No. 7 BF Slag	94,520	100%	94,520	25	10	22.5	3,781	0.318	2,405	
7P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.076	718	Sent offsite by truck only
44P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.328	3,100	
41P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.369	3,488	
26P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.321	3,034	
24P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.265	2,505	
20P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.832	7,864	
19P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.645	6,097	
99P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.250	2,363	
34P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.239	0	Remainder of scrap transported by train
1P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.206	0	
10P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.205	0	
11P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.466	0	
30P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.361	0	
32P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.318	0	
64P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.240	0	
34P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.239	0	
1P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.206	0	
10P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.205	0	
11P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.466	0	
30P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.361	0	
32P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.318	0	
64P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.240	0	
26P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.321	0	Shipped offsite by truck from slag processing area adjacent to No. 4 BOF Shop.
24P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.265	0	
20P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.832	0	
19P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.645	0	
2P	No. 2 BOF Scrap	120,000	55%	66,000	20	10	20	3,300	0.303	2,000	Remainder of scrap transported by train
8P	No. 2 BOF Scrap	120,000	55%	66,000	20	10	20	3,300	0.485	3,201	
2P	No. 2 BOF Alloys	18,720	100%	18,720	20	10	20	936	0.303	567	
8P	No. 2 BOF Alloys	18,720	100%	18,720	20	10	20	936	0.485	908	
26P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.321	2,054	Transported by rail from No. 2 BOF to slag processing area. Shipped offsite by truck from slag processing area adjacent to No. 4 BOF Shop.
24P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.265	1,696	
20P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.832	5,325	
19P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.645	4,128	
33P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.137	211	Transported by truck from Lime Plant. BOF No. 4 receives lime directly from Lime Plant by conveyor.
37P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.859	1,325	
9P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.194	299	
8P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.485	748	

Percent of Blast Furnace No. 7 slag sent by truck to Dock No. 6 for offsite water transportation: 50%
Percent of Blast Furnace No. 7 slag sent to offsite sales by truck: 50%

*Average Vehicle Weight = [(Net Weight+Tare Weight)+Tare Weight]/2
**Vehicle Miles Traveled. Assumes each truck makes one pass empty and one pass loaded.

SPM #089-18491-00316
CALCULATION OF ROAD FUGITIVE DUST EMISSIONS BY ROAD SEGMENT
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

PAVED ROADS

Road Segment ID	Area Source ID	Material	Paved Road Segment Description	Silt (%)	Road Surface Silt Loading (g/m^2)	Average Vehicle Weight (tons)	AP-42 PM_{10} Emission Factor* (lb/VMT)	Additional Annual Traffic (VMT/yr)	Additional PM_{10} Emissions (tons/yr)
46P	63	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	0.2611	859	0.1122
46P	63	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	0.2611	431	0.0563
39P	56	No. 7 BF Slag	Rt. 76 Between Rt 56/71 and Rt. 74	7.4	0.24	22.5	0.0838	4,484	0.1878
38P	40	No. 7 BF Slag	Rt. 56 Between Rt. 54 and Rt. 76	12.6	1.59	22.5	0.2827	2,405	0.3399
7P	68	No. 7 BF Slag	Rt.71 S from Slag Quench Pits to Rt.71, Under Conveyor	3.4	25.76	20.0	1.4500	718	0.5208
44P	69	No. 7 BF Slag	Rt. 71 Between New Coke Dump and West End of Rt. 75	15.4	1.98	20.0	0.2739	3,100	0.4246
41P	65	No. 7 BF Slag	Rt.71 Between Rt.70 and New Coke Dump	14.3	0.12	20.0	0.0447	3,488	0.0780
26P	39	No. 7 BF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.1548	3,034	0.2348
24P	39	No. 7 BF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.0914	2,505	0.1144
20P	39	No. 7 BF Slag	Rt.64 Between Propane Tank Farm Rd and Rt.60	9.0	1.04	20.0	0.1798	7,864	0.7069
19P	27	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.0447	6,097	0.1363
99P	8	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Plant Gate	1.3	0.12	20.0	0.0447	2,363	0.0528
34P	8	No. 4 BOF Scrap	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	0.2030	0	0.0000
1P	12	No. 4 BOF Scrap	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	0.2848	0	0.0000
10P	12	No. 4 BOF Scrap	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.0863	0	0.0000
11P	24	No. 4 BOF Scrap	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	0.2094	0	0.0000
30P	31	No. 4 BOF Scrap	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.1314	0	0.0000
32P	31	No. 4 BOF Scrap	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.1899	0	0.0000
64P	44	No. 4 BOF Scrap	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	0.3336	0	0.0000
34P	8	No. 4 BOF Alloys	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	0.2030	0	0.0000
1P	12	No. 4 BOF Alloys	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	0.2848	0	0.0000
10P	12	No. 4 BOF Alloys	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.0863	0	0.0000
11P	24	No. 4 BOF Alloys	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	0.2094	0	0.0000
30P	31	No. 4 BOF Alloys	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.1314	0	0.0000
32P	31	No. 4 BOF Alloys	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.1899	0	0.0000
64P	44	No. 4 BOF Alloys	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	0.3336	0	0.0000
26P	39	No. 4 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.1548	0	0.0000
24P	39	No. 4 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.0914	0	0.0000
20P	39	No. 4 BOF Slag	Rt.64 Propane Tank Farm Rd to Rt.60	9.0	1.04	20.0	0.1798	0	0.0000
19P	27	No. 4 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Rd	1.3	0.12	20.0	0.0447	0	0.0000
2P	7	No. 2 BOF Scrap	Rt.30	15.2	2.75	20.0	0.3385	2,000	0.3384
8P	11	No. 2 BOF Scrap	Rt.21	17.1	0.85	20.0	0.1585	3,201	0.2536
2P	7	No. 2 BOF Alloys	Rt.30	15.2	2.75	20.0	0.3385	567	0.0960
8P	11	No. 2 BOF Alloys	Rt.21	17.1	0.85	20.0	0.1585	908	0.0719
26P	39	No. 2 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.1548	2,054	0.1590
24P	39	No. 2 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.0914	1,696	0.0775
20P	39	No. 2 BOF Slag	Rt.64 Between Propane Tank Farm Rd and Rt.60	9.0	1.04	20.0	0.1798	5,325	0.4786
19P	27	No. 2 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Rd	1.3	0.12	20.0	0.0447	4,128	0.0923
33P	37	No. 2 BOF Lime	Rt. 56 Lime Plant North Entrance to Rt.41	20.6	4.64	30.0	0.8742	211	0.0923
37P	30,24	No. 2 BOF Lime	Rt. 41 (Chisom Trail) Between Rt.56 and Rt. 43	12.8	0.12	30.0	0.0822	1,325	0.0544
9P	22	No. 2 BOF Lime	Rt.43 Between Rt.40 and Rt.23 at Railroad Tracks	26.2	2.04	30.0	0.5133	299	0.0768
8P	11	No. 2 BOF Lime	Rt.21	17.1	0.85	30.0	0.2911	748	0.1089
								Paved Road Totals	4.8645

*AP-42, 5th Edition, Equation (1), page 13.2.1-4 (October 2002)

SPM #089-18491-00316
CALCULATION OF ROAD FUGITIVE DUST EMISSIONS BY AREA SOURCE
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

Road Segment ID	Area Source ID	Material	PM_{10} Emissions (tons/yr)	PM_{10} Emissions (lbs/hr)	Length of Area Source Side (m)	Length of Area Source Side (ft)	Area of Area Source (ft^2)	Emission Rate ($lb/hr/ft^2$)
2P	7	No. 2 BOF Scrap	0.3384	0.0773	500	1,640.4	2,690,912	3.6858E-08
2P	7	No. 2 BOF Alloys	0.0960	0.0219				
34P	8	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	4.4839E-09
39P	8	No. 4 BOF Alloys	0.0000	0.0000				
99P	8	No. 7 BF Slag	0.0528	0.0121				
8P	11	No. 2 BOF Lime	0.1089	0.0249	500	1,640.4	2,690,912	3.6856E-08
8P	11	No. 2 BOF Scrap	0.2536	0.0579				
8P	11	No. 2 BOF Alloys	0.0719	0.0164				
10P	12	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
1P	12	No. 4 BOF Scrap	0.0000	0.0000				
10P	12	No. 4 BOF Alloys	0.0000	0.0000				
1P	12	No. 4 BOF Alloys	0.0000	0.0000				
9P	22	No. 2 BOF Lime	0.0768	0.0175	250	820.2	672,728	2.6054E-08
11P	24	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
11P	24	No. 4 BOF Alloys	0.0000	0.0000				
19P	27	No. 2 BOF Slag	0.0923	0.0211	500	1,640.4	2,690,912	1.9401E-08
19P	27	No. 4 BOF Slag	0.0000	0.0000				
19P	27	No. 7 BF Slag	0.1363	0.0311				
37P	30	No. 2 BOF Lime	0.0544	0.0124	500	1,640.4	2,690,912	4.6175E-09
30P	31	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
32P	31	No. 4 BOF Scrap	0.0000	0.0000				
30P	31	No. 4 BOF Alloys	0.0000	0.0000				
32P	31	No. 4 BOF Alloys	0.0000	0.0000				
33P	37	No. 2 BOF Lime	0.0923	0.0211	250	820.2	672,728	3.1336E-08
20P	39	No. 2 BOF Slag	0.4786	0.1093	750	2,460.6	6,054,552	6.6786E-08
20P	39	No. 4 BOF Slag	0.0000	0.0000				
20P	39	No. 7 BF Slag	0.7069	0.1614				
24P	39	No. 2 BOF Slag	0.0775	0.0177				
24P	39	No. 4 BOF Slag	0.0000	0.0000				
24P	39	No. 7 BF Slag	0.1144	0.0261				
26P	39	No. 2 BOF Slag	0.1590	0.0363				
26P	39	No. 4 BOF Slag	0.0000	0.0000				
26P	39	No. 7 BF Slag	0.2348	0.0536				
38P	40	No. 7 BF Slag	0.3399	0.0776	500	1,640.4	2,690,912	2.8842E-08
64P	44	No. 4 BOF Scrap	0.0000	0.0000	250	820.2	672,728	0.0000E+00
64P	44	No. 4 BOF Alloys	0.0000	0.0000				
39P	56	No. 7 BF Slag	0.1878	0.0429	500	1,640.4	2,690,912	1.5931E-08
46P	63	No. 7 BF Slag	0.1122	0.0256	250	820.2	672,728	5.7163E-08
46P	63	No. 7 BF Slag	0.0563	0.0128				
41P	65	No. 7 BF Slag	0.0780	0.0178	250	820.2	672,728	2.6473E-08
7P	68	No. 7 BF Slag	0.5208	0.1189	250	820.2	672,728	1.7675E-07
44P	69	No. 7 BF Slag	0.4246	0.0969	250	820.2	672,728	1.4411E-07

SPM #089-18491-00316
SUMMARY OF MATERIAL HANDLING EMISSIONS BY AREA SOURCE
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

Material Handling ID	Area Source ID	Material	Additional PM_{10} Emissions (tons/yr)	Additional PM_{10} Emissions (lbs/hr)	Length of Area Source Side (m)	Length of Area Source Side (ft)	Area of Area Source (ft^2)	Emission Rate ($lb/hr/ft^2$)
1M	30	Self-fluxing Pellets	0.0538	0.0123	500	1,640.4	2,690,912	6.1110E-09
2M		Limestone	0.0182	0.0042				
3M	37	Limestone	0.0182	0.0042	250	820.2	672,728	6.1689E-09
4M	38	Steelmaking Slag	0.1761	0.0402	500	1,640.4	2,690,912	1.4939E-08
5M	64	No. 7 BF Slag	0.1117	0.0255	250	820.2	672,728	3.7905E-08
6M	67	No. 7 BF Slag	0.0561	0.0128	250	820.2	672,728	1.9027E-08
Additional Material Handling Emissions			0.4340	0.0991				

SPM #089-18491-00316
CALCULATION OF FUGITIVE DUST EMISSIONS BY AREA SOURCES
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

Area Source ID	Road PM_{10} Emissions (lbs/hr)	Material Handling PM_{10} Emissions (lbs/hr)	Total PM_{10} Emissions (lbs/hr)	Length of Area Source Side (m)	Length of Area Source Side (ft)	Area of Area Source (ft^2)	Emission Rate ($lb/hr/ft^2$)
7	0.0992	0.0000	0.0992	500	1,640.4	2,690,912	3.6858E-08
8	0.0121	0.0000	0.0121	500	1,640.4	2,690,912	4.4839E-09
11	0.0992	0.0000	0.0992	500	1,640.4	2,690,912	3.6856E-08
12	0.0000	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
22	0.0175	0.0000	0.0175	250	820.2	672,728	2.6054E-08
24	0.0000	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
27	0.0522	0.0000	0.0522	500	1,640.4	2,690,912	1.9401E-08
30	0.0124	0.0164	0.0289	500	1,640.4	2,690,912	1.0728E-08
31	0.0000	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
37	0.0211	0.0042	0.0252	250	820.2	672,728	3.7505E-08
38	0.0000	0.0402	0.0402	500	1,640.4	2,690,912	1.4939E-08
39	0.4044	0.0000	0.4044	750	2,460.6	6,054,552	6.6786E-08
40	0.0776	0.0000	0.0776	500	1,640.4	2,690,912	2.8842E-08
44	0.0000	0.0000	0.0000	250	820.2	672,728	0.0000E+00
56	0.0429	0.0000	0.0429	500	1,640.4	2,690,912	1.5931E-08
63	0.0385	0.0000	0.0385	250	820.2	672,728	5.7163E-08
64	0.0000	0.0255	0.0255	250	820.2	672,728	3.7905E-08
65	0.0178	0.0000	0.0178	250	820.2	672,728	2.6473E-08
67	0.0000	0.0128	0.0128	250	820.2	672,728	1.9027E-08
68	0.1189	0.0000	0.1189	250	820.2	672,728	1.7675E-07
69	0.0969	0.0000	0.0969	250	820.2	672,728	1.4411E-07

Arcelor Mittal Indiana Harbor East
SPM #089-18491-00316
Blast Furnace No. 7 Stove Addition
Emission Increase
No. 7 Blast Furnace at 772,620 Tons Hot Metal Per Year

Emission Unit	Emission Location	Changes in Annual Emission Rates of Criteria Air Pollutants (tons/yr)						
		PM	PM10	SO2	CO	NOx	VOC	Pb
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	3.1790	4.3495	34.2657	108.1668	4.7902	1.7799	0.0005
	Casthouse Baghouse No. 2 (west)	1.6213	2.7889	34.2657	428.8041	4.7902	1.7799	0.0002
	Casthouse Fugitives	11.5893	8.1125	3.8631	4.6357	0.4636	0.3477	0.0004
	Coke Transfer Station	0.0297	0.0148	0.0000	0.0000	0.0000	0.0000	0.0000
	Stockhouse Coke Baghouse	0.1335	0.1187	0.0000	0.0000	0.0000	0.0000	0.0000
	Stockhouse Pellet Baghouse	0.3238	0.3238	0.0000	0.0000	0.0000	0.0000	0.0000
	Slag Pit Operations	6.3658	6.3658	7.3170	4.8292	0.7317	0.0732	0.0001
	Stoves (NG)	0.4589	1.8356	0.1449	20.2877	25.1181	1.3284	0.0001
	Stoves (BFG)	4.9828	33.0479	107.7170	4246.3950	168.5368	0.0000	0.0005
	Blast Furnace No. 7 Total	**28.6841**	**56.9574**	**187.5734**	**4813.1185**	**204.4306**	**5.3091**	**0.0018**
PCI	Coal Transfer Baghouse A	0.1045	0.1045	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Storage Baghouse C	0.1455	0.1455	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Pulverizer Baghouse D	0.1431	0.1431	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Pulverizer Baghouse E	0.1431	0.1431	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Storage Baghouse F	0.1526	0.1526	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Storage Baghouse G	0.1526	0.1526	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Unloading	0.2799	0.2799	0.0000	0.0000	0.0000	0.0000	0.0000
	PCI Total	**1.1212**	**1.1212**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
Lime Plant	Silo Baghouses	0.5530	0.5530	0.0000	0.0000	0.0000	0.0000	0.0001
	No. 1 Kiln Baghouse	0.3575	0.4000	0.0000	50.3354	0.0000	0.0000	0.0015
	No. 2 Kiln Baghouse	0.3575	0.4000	0.0000	50.3354	0.0000	0.0000	0.0015
	Micro-Pulse Baghouse (2)	0.1762	0.1762	0.0000	0.0000	0.0000	0.0000	0.0000
	Truck Loadout Baghouse	0.2517	0.1208	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 1 Kiln (NG)	0.0001	0.0038	0.0371	5.1870	6.422	0.3396	0.0000
	No. 2 Kiln (NG)	0.0001	0.0038	0.0371	5.1870	6.422	0.3396	0.0000
	Lime Plant Total	**1.6960**	**1.6574**	**0.0741**	**111.0448**	**12.8440**	**0.6793**	**0.0033**
No. 2 BOF	10 Furnace Stack	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	20 Furnace Stack	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	10 Furnace Stack (NG)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	20 Furnace Stack (NG)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Caster Roof Monitor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Ladle Metallurgy Station	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Gas Cleaning System	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Secondary, Ventilation System Scrubber	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Charging Aisle and Reladling Desulfurization Baghouse	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Truck and Ladle Hopper Baghouse	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Flux Storage and Batch Baghouse	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Roof Monitor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 2 BOF Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
No. 4 BOF	Scrubber	77.7165	72.4395	0.4545	3650.1387	36.3586	0.4545	0.9040
	Gas Cleaning System	0.0000	0.0000	0.0000	21.3607	0.0000	0.0000	0.0000
	Secondary Vent System Baghouse	4.0419	4.3029	0.4545	63.1730	9.0896	2.2724	0.0245
	Reladling and Desulfurization Baghouse North	0.9890	3.3319	1.8157	0.0000	0.4636	0.1932	0.0002
	Reladling and Desulfurization Baghouse South	0.9890	3.3319	1.8157	0.0000	0.4636	0.1932	0.0002
	Roof Monitor	13.6345	8.3170	0.0136	1.8952	0.2727	0.0682	0.0173
	Furnace Additives Bin Loading	0.0294	0.0294	0.0000	0.0000	0.0000	0.0000	0.0000
	Torch Cut	1.5907	0.9203	0.0000	0.0000	0.0000	0.9090	0.0000
	RHOB Condensers	0.1818	0.0909	0.0000	9.7259	0.0000	0.0000	0.0146
	RHOB Material Handling	0.9090	0.9090	0.0000	0.0000	0.0000	0.0000	0.0003
	RHOB Gas Cleaning System	0.0000	0.0000	0.0000	21.3607	0.0000	0.0000	0.0000
	Furnace Additive Hopper House	0.0294	2.9415	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 4 BOF Total	**100.1110**	**96.6143**	**4.5539**	**3767.6542**	**46.6481**	**4.0903**	**0.9610**
No. 5 Boiler House	Boiler House (NG)	0.0149	0.0595	0.0047	0.6579	0.8145	0.0431	0.0000
	Boiler House (BFG)	9.5479	66.1331	206.4027	192.3617	322.9430	0.0000	0.0009
	Boiler House (Mixed Gas)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 5 Boiler House Total	**9.5628**	**66.1926**	**206.4074**	**193.0196**	**323.7575**	**0.0431**	**0.0009**

ArcelorMittal Indiana Harbor East

SPM #089-18491-00316

Calculation of Change in Hours of Operation

Baghouses with PM10 Limits (lbs/hr)

Emission Location	Hours of Operation		Average Hours of Operation	Hours Per Year	Increase in Hours of Operation	Model Operation Hours
	1999	2000				
Casthouse No. 1	8,466	8,476	8,471.0	8,760	289.0	289.0
Casthouse No. 2	8,466	8,476	8,471.0	8,760	289.0	289.0
Coal Pulverizer Baghouse	8,466	8,476	8,471.0	8,760	289.0	289.0
Lime Plant	8,247	8,072	8,159.5	8,760	600.5	200.0
No. 4 BOF Secondary Vent System	8,497	8,298	8,397.5	8,760	362.5	362.5

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
Calculation of Annual Change in Production/Throughput Rate

Emission Unit	Emission Location	Annual Production/ Thruput Change	Units	Comments
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Casthouse Baghouse No. 2 (west)	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Casthouse Baghouse No. 1 (east)	386,310	hot metal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on permitted increase in hot metal from No. 7 Blast Furnace.
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on permitted increase in hot metal from No. 7 Blast Furnace.
	Casthouse Fugitives	772,620	hot metal	Based on hot metal increase
	Coke Transfer Station	296,686	coke	Based on hot metal increase
	Stockhouse Coke Baghouse	296,686	coke	Based on hot metal increase
	Stockhouse Pellet Baghouse	1,295,275	pellet	Increase in IDEM public notice SPM
	Slag Granulation	146,341	slag	Based on minimum actual slag granulation ratio x hot metal increase.
	Slag Pit	81,527	slag	Based on minimum actual slag granulation ratio x hot metal increase.
PCI	Coal Transfer Baghouse A	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Storage Baghouse C	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Pulvurizer Baghouse D	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Coal Pulvurizer Baghouse E	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Coal Pulvurizer Baghouse D	373,155	coal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Pulvurizer Baghouse E	373,155	coal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Storage Baghouse F	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Storage Baghouse G	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Unloading	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
Lime Plant	Silo Baghouses	200.0	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	No. 1 Kiln Baghouse	200.0	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	No. 2 Kiln Baghouse	200.0	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Silo Baghouses	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	No. 1 Kiln Baghouse	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	No. 2 Kiln Baghouse	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Micro-Pulse Baghouse (2)	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Truck Loadout Baghouse	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
No. 2 BOF	10 Furnace Stack	0	molten steel	Total change in steel production divided between 10 Furnace and 20 Furnace Stacks.
	20 Furnace Stack	0	molten steel	Total change in steel production divided between 10 Furnace and 20 Furnace Stacks.
	Caster Fume Collection	0	slabs	Total change in steel production
	Ladle Metallurgy Station	0	molten steel	Total change in steel production
	Gas Cleaning System	0	molten steel	Total change in steel production
	Secondary, Ventilation System Scrubber	0	molten steel	Total change in steel production
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	Based on change in hot metal production
	Truck and Ladle Hopper Baghouse	0	flux	Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Flux Storage and Batch Baghouse	0	flux	Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Roof Monitor	0	molten steel	Total change in steel production
No. 4 BOF	Scrubber	908,965	molten steel	Total change in steel production
	Gas Cleaning System	908,965	molten steel	Total change in steel production
	Secondary Vent System Baghouse	363	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Secondary Vent System Baghouse	908,965	molten steel	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on change in total change in steel production.
	Reladling and Desulfurization Baghouse North	386,310	hot metal	Based on change in hot metal production
	Reladling and Desulfurization Baghouse South	386,310	hot metal	Based on change in hot metal production
	Roof Monitor	908,965	molten steel	Total change in steel production
	Furnace Additives Bin Loading	58,829	lime alloys	Total change in steel production
	Torch Cut	908,965	molten steel	Total change in steel production
	RHOB Condensers	908,965	molten steel	Total change in steel production
	RHOB Material Handling	908,965	molten steel	Total change in steel production
	RHOB Gas Cleaning System	908,965	molten steel	Total change in steel production
	Furnace Additive Hopper House	58,829	lime alloys	Total change in steel production
Blast Furnace No. 7	Stoves (NG)	483	mmcf	Based on change in hot metal production in tons hot metal per year and maximum BFG combust/tons hot metal Jan 05-Apr 07
	Stoves (BFG)	14,655	mmcf	Based on change in hot metal production in tons hot metal per year and maximum BFG combust/tons hot metal Jan 05-Apr 07
No. 2 BOF	10 Furnace Stack (NG)	0.00	mmcf	Based on actual mmscf of natural gas per ton of steel produced multiplied by the change in steel production.
	20 Furnace Stack (NG)	0.00	mmcf	Based on actual mmscf of natural gas per ton of steel produced multiplied by the change in steel production.
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	Based on change in amount of NG consumed.
	Boiler House (BFG)	28,082	mmcf	Based on change in amount of BFG generated in mmcf/yr less BFG consumed at No. 7 BF.
Lime Plant	No. 1 Kiln (Residual Oil)	0.0000	10^3 gal	Revised on February 21, 2003
	No. 1 Kiln (NG)	123.5000	mmcf	IDEM Public Noticed SSM
	No. 2 Kiln (Residual Oil)	0.0000	10^3 gal	Revised on February 21, 2003
	No. 2 Kiln (NG)	123.5000	mmcf	IDEM Public Noticed SSM

ArcelorMittal Indiana Harbor East

SPM #089-18491-00316

Summary of Calculations Used to Estimate Change in Annual Production/Throughput Rate

All Hot Metal Increase Through No. 4 BOF Shop

Calculation of Change in Hot Metal Production Rate		**Comments**
Change in total steel production rate at No. 2 BOF (tons steel/yr)	0	Change in hot metal/ratio hot metal to steel
Change in total steel production rate at No. 4 BOF (tons steel/yr)	908,965	Change in hot metal/ratio hot metal to steel
Ratio of hot metal to steel	0.850	Hot metal to steel ratio of 0.85 from 7/11/07 E-mail
Change in hot metal annual production/throughput change (tons/yr)	772,620	From Section D.0 of Title V Permit

Calculation of Change in Pellet Throughput Rate		**Comments**
Ratio of pellet throughput rate per ton of hot metal produced		
Change in pellet annual production/throughput change (tons/yr)	1,295,275	Increase in IDEM public notice SPM

Calculation of Change in Coke Consumption Rate		**Comments**
Ratio of coke consumption rate per ton of hot metal produced	0.384	Based on actual operating data
Change in annual coke consumption rate (tons/yr)	296,686	ratio x change in hot metal production rate

Calculation of Change in Slag Granulation and Slag Pit Production Rate		**Comments**
Ratio of slag generation per ton of hot metal produced	0.295	Maximum-Production records 1/05-4/07
Total slag generation rate (tons/yr)	227,868	change in tons hot metal x ratio of tons slag per ton hot metal
Ratio of slag granulation to total slag production	0.64	Minimum-Production records 1/05-4/07
Ratio of slag to total slag production	0.36	Based on total slag generated and granulation ratio
Revised Slag Granulation Potential Production Rate (tons/yr)	146,341	granulated ratio x total slag generation rate
Revised Slag Pit Potential Production Rate (tons/yr)	81,527	pit ratio x total slag generation rate

Calculation of PCI Change in Throughput Rate		**Comments**
Pounds of PCI consumed per ton of hot metal (before)	320	Based on 160 kg PCI/metric ton HM
Pounds of PCI consumed per ton of hot metal (after)	431	Maximum-Production records 1/05-4/07
Average tons of hot metal thruput (before)	3,737,016	October 1998 through September 2000
Average tons of hot metal thruput (after)	4,509,636	3,737,016 + change in hot metal production rate)
Tons of PCI consumed per year (before)	597,923	320 / 2000 x 3,737,016
Tons of PCI consumed per year (after)	971,077	lb/ton from production records 1/05-4/07 / 2000 x (3,737,016 + change in hot metal production rate)
Change in PCI consumed per year	373,155	Difference between before and after

Calculation of Lime Change in Throughput Rate		**Comments**
Ratio of pounds of lime per ton of steel at BOF	110.8	Maximum-Production records 1/05-4/07
Change in lime consumed per year (tons/yr)	50,335	Maximum ratio from production records 1/05-4/07 x change in No. 2 BOF steel production

Calculation of Change in Total Steel Production Rate		**Comments**
Change in total steel production rate at No. 2 BOF (tons steel/yr)	0	
Change in total steel production rate at No. 4 BOF (tons steel/yr)	908,965	

Calculation of Fuel Consumption Rates at No. 7 BF Stoves		**Comments**
BFG stoves consumption rate in mmcf per ton of hot metal	0.0190	Maximum-Production records 1/05-4/07
NG stoves consumption rate in mmcf per ton of hot metal	0.000625	Maximum-Production records 1/05-4/07
Change in BFG Consumption Rate (mmscf/yr)	14,655	Change in tons of hot metal x BFG consumption rate in mmscf per ton hot metal
Change in NG Consumption Rate (mmscf/yr)	483	Change in tons of hot metal x NG consumption rate in mmscf per ton hot metal

Calculation of Fuel Consumption Rate at No. 5 Boiler House		**Comments**
No. 7 BF BFG Generation Rate (mmscf/ton hot metal)	48,750	
Change in No. 7 BF BFG generation rate (mmscf/yr)	37,665	Change in tons of hot metal x BFG generatio rate in mmscf per ton hot metal
Change in BFG Consumption Rate at No. 5 Boiler House (mmscf/yr)	28,082	Change in No. 7 BF BFG generation rate - Change in No. 7 BF BFG consumption rate
2001 NG consumption rate (mmscf/yr)	483.38	2001 EIS Report
2001 BFG consumption rate (mmscf/yr)	100,287.83	2001 EIS Report
2001 MG consumption rate (mmscf/yr)	960.22	2001 EIS Report
2001 No. 7 BF production rate (tons/yr)	3,105,587	2001 EIS Report
Mixed Gas heating value as a percent of natural gas heating value	71.90%	71.9 percent of natural gas heating value
Mixed gas heating value	733.38	1020 BTU/scf x 71.90 percent
NG Heat Input (MMBTU/yr)	493,048	2001 NG consumption rate x natural gas heating value
BFG Heat Input (MMTU/yr)	9,025,905	2001 BFG consumption rate x BFG Heating Value
MG Heat Input (MMBTU/yr)	704,206	2001 MG consumption rate x mixed gas heating value
Total heat input (MMBTU/yr)	10,223,158	Sum of NG, BFG and MG heat inputs
2001 total heat input per ton of hot metal	3.29	Total heat input / tons hot metal
Change in total heat input at No. 5 Boiler House (MMBTU/yr)	2,543,357.08	Change in hot metal production x 2001 total heat input per ton of hot metal
Change in BFG heat input at No. 5 Boiler House (MMBTU/yr)	2,527,380.00	Change in BFG consumption rate x BFG heating value
Remaining heat input at No. 5 Boiler House made up by natural gas (MMBTU/yr)	15,977.08	Total heat input - heat input from BFG
Change in NG Consumption Rate at No. 5 Boiler House (mmscf/yr)	15.7	

Calculation of Fuel Consumption Rate at No. 2 BOF Furnace Flare Stacks		**Comments**
Consumption rate per ton of steel (mmscf/ton)	0.000015	Maximum-Production records 1/05-4/07
Change in No. 10 Furnace Flare Stack consumption rate (mmscf/yr)	0.00	Consumption rate x change in tons of steel produced
Change in No. 20 Furnace Flare Stack consumption rate (mmscf/yr)	0.00	Consumption rate x change in tons of steel produced

Calculation of Furnace Additives Bin Loading/Hopper House Throughput Rate		**Comments**
Ratio of tons of lime/flux handled per ton of steel produced	0.06472	Maximum-Production records 1/05-4/07
Change in Furnace Additive Bin Loading throughput rate (tons/yr)	58,829.08	Change in steel production x ratio
Change in Furnace Additive Hopper House throughput rate (tons/yr)	58,829.08	Change in steel production x ratio

Calculation of Fuel Consumption Rates at Lime Plant		**Comments**
Natural Gas Heating Value (BTU/scf)	1,020	Inland Steel
Heat Consumption Rate (MMBTU/ton of lime)	5.00	Inland Steel heat consumption per ton of lime
Change in lime consumed per year (tons/yr)	50,335	Maximum ratio from production records 1/05-4/07 x change in No. 2 BOF steel production
Total Heat Input (MMBTU/yr)	251,677	Heat Consumption Rate x change in steel production
Natural Gas Heat Input (MMBTU/yr)	251,677.1	Total heat input x percent natural gas
Change in Natural Gas Consumption Rate (mmscf/yr)	246.74	Natural gas heat input / natural gas heating value

Attachment A

Subpart FFFFF—National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities

Source: 68 FR 27663, May 20, 2003, unless otherwise noted.

What This Subpart Covers

§ 63.7780 What is the purpose of this subpart?
This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for integrated iron and steel manufacturing facilities. This subpart also establishes requirements to demonstrate initial and continuous compliance with all applicable emission limitations and operation and maintenance requirements in this subpart.

§ 63.7781 Am I subject to this subpart?
You are subject to this subpart if you own or operate an integrated iron and steel manufacturing facility that is (or is part of) a major source of hazardous air pollutants (HAP) emissions. Your integrated iron and steel manufacturing facility is a major source of HAP if it emits or has the potential to emit any single HAP at a rate of 10 tons or more per year or any combination of HAP at a rate of 25 tons or more per year.

§ 63.7782 What parts of my plant does this subpart cover?
(a) This subpart applies to each new and existing affected source at your integrated iron and steel manufacturing facility.
(b) The affected sources are each new or existing sinter plant, blast furnace, and basic oxygen process furnace (BOPF) shop at your integrated iron and steel manufacturing facility.
(c) This subpart covers emissions from the sinter plant windbox exhaust, discharge end, and sinter cooler; the blast furnace casthouse; and the BOPF shop including each individual BOPF and shop ancillary operations (hot metal transfer, hot metal desulfurization, slag skimming, and ladle metallurgy).
(d) A sinter plant, blast furnace, or BOPF shop at your integrated iron and steel manufacturing facility is existing if you commenced construction or reconstruction of the affected source before July 13, 2001.

§ 63.7783 When do I have to comply with this subpart?

(a) If you have an existing affected source, you must comply with each emission limitation and operation and maintenance requirement in this subpart that applies to you by the dates specified in paragraphs (a) (1) and (2) of this section.
  (1) No later than May 22, 2006 for all emissions sources at an existing affected source except for a sinter cooler at an existing sinter plant.
  (2) No later than January 13, 2007 for a sinter cooler at an existing sinter plant.

Emission Limitations

§ 63.7790 What emission limitations must I meet?
(a) You must meet each emission limit and opacity limit in Table 1 to this subpart that applies to you.
(b) You must meet each operating limit for capture systems and control devices in paragraphs (b)(1) through (3) of this section that applies to you.
  (1) You must operate each capture system applied to emissions from a sinter plant discharge end or blast furnace casthouse or to secondary emissions from a BOPF at or above the lowest value or settings established for the operating limits in your operation and maintenance plan;
  (2) For each venturi scrubber applied to meet any particulate emission limit in Table 1 to this subpart, you must maintain the hourly average pressure drop and scrubber water flow rate at or above the minimum levels established during the initial performance test.

(c) An owner or operator who uses an air pollution control device other than a baghouse, venturi scrubber, or electrostatic precipitator must submit a description of the device; test results collected in accordance with §63.7822 verifying the performance of the device for reducing emissions of particulate matter to the atmosphere to the levels required by this subpart; a copy of the operation and maintenance plan required in §63.7800(b); and appropriate operating parameters that will be monitored to maintain continuous compliance with the applicable emission limitation(s). The monitoring plan identifying the operating parameters to be monitored is subject to approval by the Administrator.

(d) For each sinter plant, you must either:

(1) Maintain the 30-day rolling average oil content of the feedstock at or below 0.02 percent; or

(2) Maintain the 30-day rolling average of volatile organic compound emissions from the windbox exhaust stream at or below 0.2 lb/ton of sinter.

Operation and Maintenance Requirements

§ 63.7800 What are my operation and maintenance requirements?

(a) As required by §63.6(e)(1)(i), you must always operate and maintain your affected source, including air pollution control and monitoring equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this subpart.

(b) You must prepare and operate at all times according to a written operation and maintenance plan for each capture system or control device subject to an operating limit in §63.7790(b). Each plan must address the elements in paragraphs (b)(1) through (5) of this section.

(1) Monthly inspections of the equipment that is important to the performance of the total capture system (*e.g.,* pressure sensors, dampers, and damper switches). This inspection must include observations of the physical appearance of the equipment (*e.g.,* presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in the ductwork, and fan erosion). The operation and maintenance plan also must include requirements to repair any defect or deficiency in the capture system before the next scheduled inspection.

(2) Preventative maintenance for each control device, including a preventative maintenance schedule that is consistent with the manufacturer's instructions for routine and long-term maintenance.

(3) Operating limits for each capture system applied to emissions from a sinter plant discharge end or blast furnace casthouse, or to secondary emissions from a BOPF. You must establish the operating limits according to the requirements in paragraphs (b)(3)(i) through (iii) of this section.

(i) Select operating limit parameters appropriate for the capture system design that are representative and reliable indicators of the performance of the capture system. At a minimum, you must use appropriate operating limit parameters that indicate the level of the ventilation draft and the damper position settings for the capture system when operating to collect emissions, including revised settings for seasonal variations. Appropriate operating limit parameters for ventilation draft include, but are not limited to, volumetric flow rate through each separately ducted hood, total volumetric flow rate at the inlet to the control device to which the capture system is vented, fan motor amperage, or static pressure.

(ii) For each operating limit parameter selected in paragraph (b)(3)(i) of this section, designate the value or setting for the parameter at which the capture system operates during the process operation. If your operation allows for more than one process to be operating simultaneously, designate the value or setting for the parameter at which the capture system operates during each possible configuration that you may operate.

(iii) Include documentation in your plan to support your selection of the operating limits established for the capture system. This documentation must include a description of the capture system design, a description of the capture system operating during production, a description of each selected operating limit parameter, a rationale for why you chose the parameter, a description of the method used to monitor the

parameter according to the requirements of §63.7830(a), and the data used to set the value or setting for the parameter for each of your process configurations.

(4) Corrective action procedures for baghouses equipped with bag leak detection systems or continuous opacity monitoring systems (COMS). In the event a bag leak detection system alarm is triggered or emissions from a baghouse equipped with a COMS exceed an hourly average opacity of 5 percent, you must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon as practicable. Corrective actions may include, but are not limited to:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repair the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions; and .

(5) Corrective action procedures for venturi scrubbers equipped with continuous parameter monitoring systems (CPMS). In the event a venturi scrubber exceeds the operating limit in §63.7790 (b) (2), you must take corrective actions consistent with your site-specific monitoring plan in accordance with §63.7831 (a).

(7) Procedures for determining and recording the daily sinter plant production rate in tons per hour.

General Compliance Requirements

§ 63.7810 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operation and maintenance requirements in this subpart at all times, except during periods of startup, shutdown, and malfunction as defined in §63.2.

(b) During the period between the compliance date specified for your affected source in §63.7783 and the date upon which continuous monitoring systems have been installed and certified and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(c) You must develop a written startup, shutdown, and malfunction plan according to the provisions in §63.6(e)(3).

68 FR 27663, May 20, 2003, as amended at 71 FR 20468, Apr. 20, 2006]

Initial Compliance Requirements

§ 63.7820 By what date must I conduct performance tests or other initial compliance demonstrations?

(a) You must conduct a performance test to demonstrate initial compliance with each emission and opacity limit in Table 1 to this subpart that applies to you. You must also conduct a performance test to demonstrate initial compliance with the 30-day rolling average operating limit for the oil content of the sinter plant feedstock in §63.7790(d)(1) or alternative limit for volatile organic compound emissions from the sinter plant windbox exhaust stream in §63.7790(d)(2). You must conduct the performance tests within 180 calendar days after the compliance date that is specified in §63.7783 for your affected source and report the results in your notification of compliance status.

(b) For each operation and maintenance requirement that applies to you where initial compliance is not demonstrated using a performance test or opacity observation, you must demonstrate initial compliance within 30 calendar days after the compliance date that is specified for your affected source in §63.7783.

§ 63.7821 When must I conduct subsequent performance tests?

(a) You must conduct subsequent performance tests to demonstrate compliance with applicable PM and opacity limits in Table 1 to this subpart at frequencies specified in paragraphs (b) through (d) of this section.

(b) For each sinter cooler at an existing sinter plant and each emissions unit equipped with a control device other than a baghouse, you must conduct subsequent performance tests no less frequently than twice (at mid-term and renewal) during each term of your Title V operating permit.

(c) For each emissions unit equipped with a baghouse, you must conduct subsequent performance tests no less frequently than once during each term of your Title V operating permit.

(d) For sources without a Title V operating permit, you must conduct subsequent tests every 2.5 years.

§ 63.7822 What test methods and other procedures must I use to demonstrate initial compliance with the emission limits for particulate matter?

(a) You must conduct each performance test that applies to your affected source according to the requirements in §63.7(e)(1) and the conditions detailed in paragraphs (b) through (i) of this section.

(b) To determine compliance with the applicable emission limit for particulate matter in Table 1 to this subpart, follow the test methods and procedures in paragraphs (b)(1) and (2) of this section.

(1) Determine the concentration of particulate matter according to the following test methods in appendix A to part 60 of this chapter:

(i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.

(iv) Method 4 to determine the moisture content of the stack gas.

(v) Method 5, 5D, or 17, as applicable, to determine the concentration of particulate matter (front half filterable catch only).

(2) Collect a minimum sample volume of 60 dry standard cubic feet (dscf) of gas during each particulate matter test run. Three valid test runs are needed to comprise a performance test.

(c) For each sinter plant windbox exhaust stream, you must complete the requirements of paragraphs (c)(1) and (2) of this section:

(1) Follow the procedures in your operation and maintenance plan for measuring and recording the sinter production rate for each test run in tons per hour; and

(2) Compute the process-weighted mass emissions (E_p) for each test run using Equation 1 of this section as follows:

$$E_p = \frac{C \times Q}{P \times K} \qquad \text{(Eq. 1)}$$

Where:

E_p = Process-weighted mass emissions of particulate matter, lb/ton;

C = Concentration of particulate matter, grains per dry standard cubic foot (gr/dscf);

Q = Volumetric flow rate of stack gas, dry standard cubic foot per hour (dscf/hr);

P = Production rate of sinter during the test run, tons/hr; and

K = Conversion factor, 7,000 grains per pound (gr/lb).

(d) If you apply two or more control devices in parallel to emissions from a sinter plant discharge end or a BOPF, compute the average flow-weighted concentration for each test run using Equation 2 of this section as follows:

$$C_W = \frac{\sum_{i=1}^{n} C_i Q_i}{\sum_{i=1}^{n} Q_i} \qquad \text{(Eq. 2)}$$

Where:

C_w = Flow-weighted concentration, gr/dscf;

C_i = Concentration of particulate matter from exhaust stream "i", gr/dscf; and

Q_i = Volumetric flow rate of effluent gas from exhaust stream "i", dry standard cubic foot per minute (dscfm).

(e) For a control device applied to emissions from a blast furnace casthouse, sample for an integral number of furnace tapping operations sufficient to obtain at least 1 hour of sampling for each test run.

(f) For a primary emission control device applied to emissions from a BOPF with a closed hood system, sample only during the primary oxygen blow and do not sample during any subsequent reblows. Continue sampling for each run for an integral number of primary oxygen blows.

(g) For a primary emission control system applied to emissions from a BOPF with an open hood system and for a control device applied solely to secondary emissions from a BOPF, you must complete the requirements of paragraphs (g)(1) and (2) of this section:

(1) Sample only during the steel production cycle. Conduct sampling under conditions that are representative of normal operation. Record the start and end time of each steel production cycle and each period of abnormal operation; and

(2) Sample for an integral number of steel production cycles. The steel production cycle begins when the scrap is charged to the furnace and ends 3 minutes after the slag is emptied from the vessel into the slag pot.

(h) For a control device applied to emissions from BOPF shop ancillary operations (hot metal transfer, skimming, desulfurization, or ladle metallurgy), sample only when the operation(s) is being conducted.

(i) Subject to approval by the permitting authority, you may conduct representative sampling of stacks when there are more than three stacks associated with a process.

§ 63.7823 What test methods and other procedures must I use to demonstrate initial compliance with the opacity limits?

(a) You must conduct each performance test that applies to your affected source according to the requirements in §63.7(h)(5) and the conditions detailed in paragraphs (b) through (d) of this section.

(b) You must conduct each visible emissions performance test such that the opacity observations overlap with the performance test for particulate matter.

(c) To determine compliance with the applicable opacity limit in Table 1 to this subpart for a sinter plant discharge end or a blast furnace casthouse:

(1) Using a certified observer, determine the opacity of emissions according to Method 9 in appendix A to part 60 of this chapter.

(2) Obtain a minimum of 30 6-minute block averages. For a blast furnace casthouse, make observations during tapping of the furnace. Tapping begins when the furnace is opened, usually by creating a hole near the bottom of the furnace, and ends when the hole is plugged.

(d) To determine compliance with the applicable opacity limit in Table 1 to this subpart for BOPF shops:

(1) For an existing BOPF shop:

(i) Using a certified observer, determine the opacity of emissions according to Method 9 in appendix A to part 60 of this chapter except as specified in paragraphs (d)(1)(ii) and (iii) of this section.

(ii) Instead of procedures in section 2.4 of Method 9 in appendix A to part 60 of this chapter, record observations to the nearest 5 percent at 15-second intervals for at least three steel production cycles.

(iii) Instead of procedures in section 2.5 of Method 9 in appendix A to part 60 of this chapter, determine the 3-minute block average opacity from the average of 12 consecutive observations recorded at 15-second intervals.

(4) Opacity observations must cover the entire steel production cycle and must be made for at least three cycles. The steel production cycle begins when the scrap is charged to the furnace and ends 3 minutes after the slag is emptied from the vessel into the slag pot.

(5) Determine and record the starting and stopping times of the steel production cycle.

(e) To determine compliance with the applicable opacity limit in Table 1 to this subpart for sinter cooler at an existing sinter plant:

(1) Using a certified observer, determine the opacity of emissions according to Method 9 in appendix A to part 60 of this chapter.

(2) Obtain a minimum of 30 6-minute block averages.

(3) Make visible emission observations of uncovered portions of sinter plant coolers with the observer's line of site generally in the direction of the center of the cooler.

§ 63.7824 What test methods and other procedures must I use to establish and demonstrate initial compliance with operating limits?

(a) For each capture system subject to an operating limit in §63.7790(b)(1), you must certify that the system operated during the performance test at the site-specific operating limits established in your operation and maintenance plan using the procedures in paragraphs (a)(1) through (4) of this section.

(1) Concurrent with all opacity observations, measure and record values for each of the operating limit parameters in your capture system operation and maintenance plan according to the monitoring requirements specified in §63.7830(a).

(2) For any dampers that are manually set and remain at the same position at all times the capture system is operating, the damper position must be visually checked and recorded at the beginning and end of each opacity observation period segment.

(3) Review and record the monitoring data. Identify and explain any times the capture system operated outside the applicable operating limits.

(4) Certify in your performance test report that during all observation period segments, the capture system was operating at the values or settings established in your capture system operation and maintenance plan.

(b) For a venturi scrubber subject to operating limits for pressure drop and scrubber water flow rate in §63.7790(b)(2), you may establish the parametric monitoring limit during the initial performance test or during any other performance test run that meets the emission limit

(1) Using the CPMS required in §63.7830(c), measure and record the pressure drop and scrubber water flow rate during each run of the particulate matter performance test.

(2) Compute and record the hourly average pressure drop and scrubber water flow rate for each individual test run. Your operating limits are the lowest average pressure drop and scrubber water flow rate value in any of the three runs that meet the applicable emission limit.

(c) You may change the operating limits for a capture system or venturi scrubber if you meet the requirements in paragraphs (c)(1) through (3) of this section.

(1) Submit a written notification to the Administrator of your request to conduct a new performance test to revise the operating limit.

(2) Conduct a performance test to demonstrate compliance with the applicable emission limitation in Table 1 to this subpart.

(3) Establish revised operating limits according to the applicable procedures in paragraphs (a) and (b) of this section for a control device or capture system.

(d) For each sinter plant subject to the operating limit for the oil content of the sinter plant feedstock in §63.7790(d)(1), you must demonstrate initial compliance according to the procedures in paragraphs (d)(1) through (3) of this section.

(1) Sample the feedstock at least three times a day (once every 8 hours), composite the three samples each day, and analyze the composited samples using Method 9071B, "n-Hexane Extractable Material(HEM) for Sludge, Sediment, and Solid Samples," (Revision 2, April 1998). Method 9071B is incorporated by reference (see §63.14) and is published in EPA Publication SW–846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods." Record the sampling date and time, oil content values, and sinter produced (tons/day).

(2) Continue the sampling and analysis procedure for 30 consecutive days.

(3) Each day, compute and record the 30-day rolling average using that day's value and the 29 previous daily values.

(e) To demonstrate initial compliance with the alternative operating limit for volatile organic compound emissions from the sinter plant windbox exhaust stream in §63.7790(d)(2), follow the test methods and procedures in paragraphs (e)(1) through (5) of this section.

(1) Determine the volatile organic compound emissions according to the following test methods in appendix A to part 60 of this chapter:
   (i) Method 1 to select sampling port locations and the number of traverse points. Sampling ports must be located at the outlet of the control device and prior to any releases to the atmosphere.
   (ii) Method 2, 2F, or 2G to determine the volumetric flow rate of the stack gas.
   (iii) Method 3, 3A, or 3B to determine the dry molecular weight of the stack gas.
   (iv) Method 4 to determine the moisture content of the stack gas.
   (v) Method 25 to determine the mass concentration of volatile organic compound emissions (total gaseous nonmethane organics as carbon) from the sinter plant windbox exhaust stream stack.

(2) Determine volatile organic compound (VOC) emissions every 24 hours (from at least three samples taken at 8-hour intervals) using Method 25 in 40 CFR part 60, appendix A. Record the sampling date and time, sampling results, and sinter produced (tons/day).

(3) Compute the process-weighted mass emissions (E_v) each day using Equation 1 of this section as follows:

$$E_v = \frac{M_c \times Q}{35.31 \times 454,000 \times K} \qquad \text{(Eq. 1)}$$

Where:

E_v = Process-weighted mass emissions of volatile organic compounds, lb/ton;

M_c = Average concentration of total gaseous nonmethane organics as carbon by Method 25 (40 CFR part 60, appendix A), milligrams per dry standard cubic meters (mg/dscm) for each day;

Q = Volumetric flow rate of stack gas, dscf/hr;

35.31 = Conversion factor (dscf/dscm);

454,000 = Conversion factor (mg/lb); and

K = Daily production rate of sinter, tons/hr.

(4) Continue the sampling and analysis procedure in paragraphs (f)(1) through (3) of this section for 30 consecutive days.

(5) Compute and record the 30-day rolling average of VOC emissions for each operating day.

(g) You may use an alternative test method to determine the oil content of the sinter plant feedstock or the volatile organic compound emissions from the sinter plant windbox exhaust stack if you have already demonstrated the equivalency of the alternative method for a specific plant and have received previous approval from the applicable permitting authority.

§ 63.7825 How do I demonstrate initial compliance with the emission limitations that apply to me?

(a) For each affected source subject to an emission or opacity limit in Table 1 to this subpart, you have demonstrated initial compliance if:
   (1) You meet the conditions in Table 2 to this subpart; and
   (2) For each capture system subject to the operating limit in §63.7790(b)(1), you have established appropriate site-specific operating limit(s) and have a record of the operating parameter data measured during the performance test in accordance with §63.7824(a)(1); and
   (3) For each venturi scrubber subject to the operating limits for pressure drop and scrubber water flow rate in §63.7790(b)(2), you have established appropriate site-specific operating limits and have a record of the pressure drop and scrubber water flow rate measured during the performance test in accordance with §63.7824(b).

(b) For each existing or new sinter plant subject to the operating limit in §63.7790(d)(1), you have demonstrated initial compliance if the 30-day rolling average of the oil content of the feedstock, measured during the initial performance test in accordance with §63.7824(d) is no more than 0.02 percent. For each existing or new sinter plant subject to the alternative operating limit in §63.7790 (d) (2), you have demonstrated initial compliance if the 30-day rolling average of the volatile organic compound emissions from the sinter plant windbox exhaust stream, measured during the initial performance test in accordance with §63.7824(e), is no more than 0.2 lb/ton of sinter produced.

(c) For each emission limitation that applies to you, you must submit a notification of compliance status according to §63.7840(e).

§ 63.7826 How do I demonstrate initial compliance with the operation and maintenance requirements that apply to me?

(a) For a capture system applied to emissions from a sinter plant discharge end or blast furnace casthouse or to secondary emissions from a BOPF, you have demonstrated initial compliance if you meet all of the conditions in paragraphs (a)(1) through (4) of this section.
  (1) Prepared the capture system operation and maintenance plan according to the requirements of §63.7800(b), including monthly inspection procedures and detailed descriptions of the operating parameter(s) selected to monitor the capture system;
  (2) Certified in your performance test report that the system operated during the test at the operating limits established in your operation and maintenance plan;
  (3) Submitted a notification of compliance status according to the requirements in §63.7840(e), including a copy of the capture system operation and maintenance plan and your certification that you will operate the capture system at the values or settings established for the operating limits in that plan; and
  (4) Prepared a site-specific monitoring plan according to the requirements in §63.7831(a).

(b) For each control device subject to operating limits in §63.7790(b)(2) or (3), you have demonstrated initial compliance if you meet all the conditions in paragraphs (b)(1) through (3) of this section.
  (1) Prepared the control device operation and maintenance plan according to the requirements of §63.7800(b), including a preventative maintenance schedule and, as applicable, detailed descriptions of the corrective action procedures for baghouses and other contol devices;
  (2) Submitted a notification of compliance status according to the requirements in §63.7840(e), including a copy of the operation and maintenance plan; and
  (3) Prepared a site-specific monitoring plan according to the requirements in §63.7831(a).

Continuous Compliance Requirements

§ 63.7830 What are my monitoring requirements?

(a) For each capture system subject to an operating limit in §63.7790(b)(1) established in your capture system operation and maintenance plan, you must install, operate, and maintain a CPMS according to the requirements in §63.7831(e) and the requirements in paragraphs (a)(1) through (3) of this section.
  (1) Dampers that are manually set and remain in the same position are exempt from the requirement to install and operate a CPMS. If dampers are not manually set and remain in the same position, you must make a visual check at least once every 24 hours to verify that each damper for the capture system is in the same position as during the initial performance test.
  (2) If you use a flow measurement device to monitor the operating limit parameter for a sinter plant discharge end or blast furnace casthouse, you must monitor the hourly average rate (*e.g.,* the hourly average actual volumetric flow rate through each separately ducted hood, the average hourly total volumetric flow rate at the inlet to the control device) according to the requirements in §63.7832.
  (3) If you use a flow measurement device to monitor the operating limit parameter for a capture system applied to secondary emissions from a BOPF, you must monitor the average rate for each steel production cycle (*e.g.,* the average actual volumetric flow rate through each separately ducted hood for each steel production cycle, the average total volumetric flow rate at the inlet to the control device for each steel production cycle) according to the requirements in §63.7832.

(b) Except as provided in paragraph (b) (3) of this subsection, you must meet the requirements in paragraph (b) (1) or (2) of this section for each baghouse applied to meet any particulate emission limit in Table 1 to this subpart. You must conduct inspections of each baghouse according to the requirements in paragraph (b) (4) of this section.
  (1) Install, operate, and maintain a bag leak detection system according to §63.7831(f), and monitor the relative change in particulate matter loadings according to the requirements in §63.7832; or

(2) If you do not install and operate a bag leak detection system, you must install, operate, and maintain a COMS according to the requirements in §63.7831 (h) and monitor the hourly average opacity of emissions exiting each control device stack according to the requirement in §63.7832.

(3) A bag leak detection system and COMS are not required for a baghouse that meets the requirements in paragraphs (b) (3) (i) and (ii) of this section.

(i) The baghouse is a positive pressure baghouse and is not equipped with exhaust gas stacks; and

(ii) The baghouse was installed before August 30, 2005.

(4) You must conduct inspections of each baghouse at the specified frequencies according to the requirements in paragraphs (b)(i) through (viii) of this section.

(i) Monitor the pressure drop across each baghouse cell each day to ensure pressure drop is within the normal operating range identified in the manual.

(ii) Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(iii) Check the compressed air supply for pulse-jet baghouses each day.

(iv) Monitor cleaning cycles to ensure proper operation using an appropriate methodology.

(v) Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.

(vi) Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or laying on their sides. You do not have to make this check for shaker-type baghouses using self-tensioning (spring-loaded) devices.

(vii) Confirm the physical integrity of the baghouse through quarterly visual inspections of the baghouse interior for air leaks.

(viii) Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

(c) For each venturi scrubber subject to the operating limits for pressure drop and scrubber water flow rate in §63.7790(b)(2), you must install, operate, and maintain CPMS according to the requirements in §63.7831(g) and monitor the hourly average pressure drop and water flow rate according to the requirements in §63.7832.

(e) For each sinter plant subject to the operating limit in §63.7790(d), you must either:

(1) Compute and record the 30-day rolling average of the oil content of the feedstock for each operating day using the procedures in §63.7824(d); or

(2) Compute and record the 30-day rolling average of volatile organic compound emissions (lbs/ton of sinter) for each operating day using the procedures in §63.7824(e).

§ 63.7831 What are the installation, operation, and maintenance requirements for my monitors?

(a) For each CPMS required in §63.7830, you must develop and make available for inspection upon request by the permitting authority a site-specific monitoring plan that addresses the requirements in paragraphs (a)(1) through (8) of this section.

(1) Installation of the CPMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device);

(2) Performance and equipment specifications for the sample interface, the parametric signal analyzer, and the data collection and reduction system;

(3) Performance evaluation procedures and acceptance criteria (e.g., calibrations);

(4) Ongoing operation and maintenance procedures in accordance with the general requirements of §§63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);

(5) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d);

(6) Ongoing recordkeeping and reporting procedures in accordance the general requirements of §§63.10(c), (e)(1), and (e)(2)(i);

(7) Corrective action procedures you will follow in the event a venturi scrubber exceeds the operating limit in §63.7790 (b) (2); and

(8) Corrective action procedures you will follow in the event an electrostatic precipitator exceeds the operating limit in §63.7790 (b) (3).

(b) Unless otherwise specified, each CPMS must:

(1) Complete a minimum of one cycle of operation for each successive 15-minute period and collect a minimum of three of the required four data points to constitute a valid hour of data;

(2) Provide valid hourly data for at least 95 percent of every averaging period; and

(3) Determine and record the hourly average of all recorded readings.

(c) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(d) You must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan.

(e) For each capture system subject to an operating limit in §63.7790(b)(1), you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a) through (d) of this section.

(f) For each baghouse equipped with a bag leak detection system according to §63.7790 (b) (1), you must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (f)(1) through (7) of this section.

(1) The system must be certified by the manufacturer to be capable of detecting emissions of particulate matter at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(2) The system must provide output of relative changes in particulate matter loadings.

(3) The system must be equipped with an alarm that will sound when an increase in relative particulate loadings is detected over a preset level. The alarm must be located such that it can be heard by the appropriate plant personnel.

(4) Each system that works based on the triboelectric effect must be installed, operated, and maintained in a manner consistent with the guidance document, “Fabric Filter Bag Leak Detection Guidance,” EPA–454/R–98–015, September 1997. You may install, operate, and maintain other types of bag leak detection systems in a manner consistent with the manufacturer's written specifications and recommendations.

(5) To make the initial adjustment of the system, establish the baseline output by adjusting the sensitivity (range) and the averaging period of the device. Then, establish the alarm set points and the alarm delay time.

(6) Following the initial adjustment, do not adjust the sensitivity or range, averaging period, alarm set points, or alarm delay time, except as detailed in your operation and maintenance plan. Do not increase the sensitivity by more than 100 percent or decrease the sensitivity by more than 50 percent over a 365-day period unless a responsible official certifies, in writing, that the baghouse has been inspected and found to be in good operating condition.

(7) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(g) For each venturi scrubber subject to operating limits in §63.7790(b)(2) for pressure drop and scrubber water flow rate, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (a) through (d) of this section.

§ 63.7832 How do I monitor and collect data to demonstrate continuous compliance?

(a) Except for monitoring malfunctions, out-of-control periods as specified in §63.8(c)(7), associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times an affected source is operating.

(b) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels or to fulfill a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing compliance.

(c) A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

§ 63.7833 How do I demonstrate continuous compliance with the emission limitations that apply to me?

(a) You must demonstrate continuous compliance for each affected source subject to an emission or opacity limit in §63.7790(a) by meeting the requirements in Table 3 to this subpart.

(b) You must demonstrate continuous compliance for each capture system subject to an operating limit in §63.7790(b)(1) by meeting the requirements in paragraphs (b)(1) and (2) of this section.

(1) Operate the capture system at or above the lowest values or settings established for the operating limits in your operation and maintenance plan; and

(2) Monitor the capture system according to the requirements in §63.7830(a) and collect, reduce, and record the monitoring data for each of the operating limit parameters according to the applicable requirements of this subpart;

(c) For each baghouse applied to meet any particulate emission limit in Table 1 to this subpart, you must demonstrate continuous compliance by meeting the requirements in paragraphs (c)(1) or (2) as applicable, and paragraphs (c) (3) and (4) of this section:

(1) For a baghouse equipped with a bag leak detection system, operating and maintaining each bag leak detection system according to §63.7831 (f) and recording all information needed to document conformance with these requirements. If you increase or decrease the sensitivity of the bag leak detection system beyond the limits specified in §63.7831(f)(6), you must include a copy of the required written certification by a responsible official in the next semiannual compliance report.

(2) For a baghouse equipped with a COMS, operating and maintaining each COMS and reducing the COMS data according to §63.7831 (h).

(3) Inspecting each baghouse according to the requirements in §63.7830(b) (4) and maintaining all records to document conformance with these requirements

(4) Maintaining records of the time you initiated corrective actions in the event of a bag leak detection system alarm or when the hourly average opacity exceeded 5 percent, the corrective action(s) taken, and the date on which corrective action was completed.

(d) For each venturi scrubber subject to the operating limits for pressure drop and scrubber water flow rate in §63.7790(b)(2), you must demonstrate continuous compliance by meeting the requirements of paragraphs (d)(1) through (4) of this section:

(1) Maintaining the hourly average pressure drop and scrubber water flow rate at levels no lower than those established during the initial or subsequent performance test;

(2) Operating and maintaining each venturi scrubber CPMS according to §63.7831(g) and recording all information needed to document conformance with these requirements; and

(3) Collecting and reducing monitoring data for pressure drop and scrubber water flow rate according to §63.7831(b) and recording all information needed to document conformance with these requirements.

(4) If the hourly average pressure drop or scrubber water flow rate is below the operating limits, you must follow the corrective action procedures in paragraph (g) of this section.

(f) For each new or existing sinter plant subject to the operating limit in §63.7790(d), you must demonstrate continuous compliance by either:

(1) For the sinter plant feedstock oil content operating limit in §63.7790(d)(1),

(i) Computing and recording the 30-day rolling average of the percent oil content for each operating day according to the performance test procedures in §63.7824(d);

(ii) Recording the sampling date and time, oil content values, and sinter produced (tons/day) and

(iii) Maintaining the 30-day rolling average oil content of the feedstock no higher than 0.02 percent.

(2) For the volatile organic compound operating limit in §63.7790(d)(2),

(i) Computing and recording the 30-day rolling average of volatile organic compound emissions for each operating day according to the performance test procedures in §63.7824(e);

(ii) Recording the sampling date and time, sampling values, and sinter produced (tons/day); and

(iii) Maintaining the 30-day rolling average of volatile organic compound emissions no higher than 0.2 lb/ton of sinter produced.

(g) If the hourly average pressure drop or water flow rate for a venturi scrubber or hourly average opacity for an electrostatic precipator exceeds the operating limit, you must follow the procedures in paragraphs (g) (1) through (4) of this section.

(1) You must initiate corrective action to determine the cause of the exceedance within 1 hour. During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. Within 24 hours of the exceedance, you must measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit.

(2) If the initial corrective action required in paragraph (g)(1) of this section was not successful, you must complete additional corrective action within the next 24 hours (48 hours from the time of the exceedance). During any period of corrective action, you must continue to monitor and record all required operating parameters for equipment that remains in operation. After this second 24 hour period, you must again measure and record the hourly average operating parameter value for the emission unit on which corrective action was taken. If the hourly average parameter value meets the applicable operating limit, then the corrective action was successful and the emission unit is in compliance with the applicable operating limit.

(3) For purposes of paragraphs (g)(1) and (2) of this section, in the case of an exceedance of the hourly average opacity operating limit for an electrostatic precipitator, measurements of the hourly average opacity based on visible emission observations in accordance with Method 9 (40 CFR part 60, appendix A) may be taken to evaluate the effectiveness of corrective action.

(4) If the second attempt at corrective action required in paragraph (g) (2) of this section was not successful, you must report the exceedance as a deviation in your next semiannual compliance report according to §63.7841(b).

§ 63.7834 How do I demonstrate continuous compliance with the operation and maintenance requirements that apply to me?

(a) For each capture system and control device subject to an operating limit in §63.7790(b), you must demonstrate continuous compliance with the operation and maintenance requirements in §63.7800(b) by meeting the requirements of paragraphs (a)(1) through (4) of this section:

(1) Making monthly inspections of capture systems and initiating corrective action according to §63.7800(b)(1) and recording all information needed to document conformance with these requirements;

(2) Performing preventative maintenance according to §63.7800(b)(2) and recording all information needed to document conformance with these requirements;

(3) Initiating and completing corrective action for a baghouse equipped with a bag leak detection system or COMS according to §63.7800(b)(4) and recording all information needed to document conformance with these requirements, including the time you initiated corrective action, the corrective actions taken, and date on which corrective action was completed.

(4) Initiating and completing corrective action for a venturi scrubber equipped with a CPMS or an electrostatic precipitator equipped with a COMS according to §63.7833(g) and recording all information needed to document conformance with these requirements, including the time you initiated corrective action, the corrective action(s) taken within the first 24 hours according to §63.7833(g)(1) and whether they were successful, the corrective action(s) taken within the second 24 hours according to §63.7833(g)(2) and whether they were successful, and the date on which corrective action was completed.,

(b) You must maintain a current copy of the operation and maintenance plan required in §63.7800(b) onsite and available for inspection upon request. You must keep the plans for the life of the affected source or until the affected source is no longer subject to the requirements of this subpart.

§ 63.7835 What other requirements must I meet to demonstrate continuous compliance?

(a) *Deviations.* Except as provided in §63.7833(g), you must report each instance in which you did not meet each emission limitation in §63.7790 that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet each operation and maintenance requirement in §63.7800 that applies to you. These instances are deviations from the emission limitations and operation and maintenance requirements in this subpart. These deviations must be reported according to the requirements in §63.7841.

(b) *Startups, shutdowns, and malfunctions.*

(1) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1).

(2) The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

[68 FR 27663, May 20, 2003, as amended at 71 FR 20468, Apr. 20, 2006]

Notifications, Reports, and Records

§ 63.7840 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.6(h)(4) and (5), 63.7(b) and (c), 63.8(e) and (f)(4), and 63.9(b) through (h) that apply to you by the specified dates.

(b) As specified in §63.9(b)(2), if you startup your affected source before May 20, 2003, you must submit your initial notification no later than September 17, 2003.

(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as required in §63.7(b)(1).

(e) If you are required to conduct a performance test, opacity observation, or other initial compliance demonstration, you must submit a notification of compliance status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration that does not include a performance test, you must 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, you must 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 §63.10(d)(2).

§ 63.7841 What reports must I submit and when?

(a) *Compliance report due dates.* Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7783 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your source in §63.7783.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority

has established instead of according to the dates in paragraphs (a)(1) through (4) of this section.

(b) *Compliance report contents.* Each compliance report must include the information in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (8) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from the continuous compliance requirements in §63.7833 and 63.7834 that apply to you, a statement that there were no deviations from the emission limitations or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS, COMS, or continuous emission monitoring system (CEMS) was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emission limitation in §63.7790 that occurs at an affected source where you are not using a continuous monitoring system (including a CPMS, COMS, or CEMS) to comply with an emission limitation in this subpart, the compliance report must contain the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(7)(i) and (ii) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable and the corrective action taken.

(8) For each deviation from an emission limitation occurring at an affected source where you are using a continuous monitoring system (including a CPMS or COMS) to comply with the emission limitation in this subpart, you must include the information in paragraphs (b)(1) through (4) of this section and the information in paragraphs (b)(8)(i) through (xi) of this section. This includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control as specified in §63.8(c)(7), including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period including those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(c) *Immediate startup, shutdown, and malfunction report.* If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup,

shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements in §63.10(d)(5)(ii).

(d) *Part 70 monitoring report.* If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emission limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

§ 63.7842 What records must I keep?

(a) You must keep the following records:
  (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or notification of compliance status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
  (2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
  (3) Records of performance tests, performance evaluations, and opacity observations as required in §63.10(b)(2)(viii).

(b) For each COMS, you must keep the records specified in paragraphs (b)(1) through (4) of this section.
  (1) Records described in §63.10(b)(2)(vi) through (xi).
  (2) Monitoring data for a performance evaluation as required in §63.6(h)(7)(i) and (ii).
  (3) Previous (that is, superceded) versions of the performance evaluation plan as required in §63.8(d)(3).
  (4) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in §63.6(h)(6) for visual observations.

(d) You must keep the records required in §§63.7833 and 63.7834 to show continuous compliance with each emission limitation and operation and maintenance requirement that applies to you.

§ 63.7843 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.7850 What parts of the General Provisions apply to me?

Table 4 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

§ 63.7851 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the United States Environmental Protection Agency (U.S. EPA), or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are

retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternative opacity emission limits in Table 1 to this subpart under §63.6(h)(9).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90, except for approval of an alternative method for the oil content of the sinter plant feedstock or volatile organic compound measurements for the sinter plant windbox exhaust stream stack as provided in §63.7824(g).

(3) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.7852 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows.

Bag leak detection system means a system that is capable of continuously monitoring relative particulate matter (dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on tribroelectric, light scattering, light transmittance, or other effect to continuously monitor relative particulate matter loadings.

Basic oxygen process furnace means any refractory-lined vessel in which high-purity oxygen is blown under pressure through a bath of molten iron, scrap metal, and fluxes to produce steel. This definition includes both top and bottom blown furnaces, but does not include argon oxygen decarburization furnaces.

Basic oxygen process furnace shop means the place where steelmaking operations that begin with the transfer of molten iron (hot metal) from the torpedo car and end prior to casting the molten steel, including hot metal transfer, desulfurization, slag skimming, refining in a basic oxygen process furnace, and ladle metallurgy occur.

Basic oxygen process furnace shop ancillary operations means the processes where hot metal transfer, hot metal desulfurization, slag skimming, and ladle metallurgy occur.

Blast furnace means a furnace used for the production of molten iron from iron ore and other iron bearing materials.

Bottom-blown furnace means any basic oxygen process furnace in which oxygen and other combustion gases are introduced into the bath of molten iron through tuyeres in the bottom of the vessel or through tuyeres in the bottom and sides of the vessel.

Casthouse means the building or structure that encloses the bottom portion of a blast furnace where the hot metal and slag are tapped from the furnace.

Certified observer means a visible emission observer certified to perform EPA Method 9 opacity observations.

Desulfurization means the process in which reagents such as magnesium, soda ash, and lime are injected into the hot metal, usually with dry air or nitrogen, to remove sulfur.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including operating limits) or operation and maintenance requirement;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Discharge end means the place where those operations conducted within the sinter plant starting at the discharge of the sintering machine's traveling grate including (but not limited to) hot sinter crushing, screening, and transfer operations occur.

Emission limitation means any emission limit, opacity limit, or operating limit.

Hot metal transfer station means the location in a basic oxygen process furnace shop where molten iron (hot metal) is transferred from a torpedo car or hot metal car used to transport hot metal from the blast furnace casthouse to a holding vessel or ladle in the basic oxygen process furnace shop. This location also is known as the reladling station or ladle transfer station.

Integrated iron and steel manufacturing facility means an establishment engaged in the production of steel from iron ore.
Ladle metallurgy means a secondary steelmaking process that is performed typically in a ladle after initial refining in a basic oxygen process furnace to adjust or amend the chemical and/or mechanical properties of steel. This definition does not include vacuum degassing.
Primary emissions means particulate matter emissions from the basic oxygen process furnace generated during the steel production cycle which are captured and treated in the furnace's primary emission control system.
Primary emission control system means the combination of equipment used for the capture and collection of primary emissions (*e.g.,* an open hood capture system used in conjunction with an electrostatic precipitator or a closed hood system used in conjunction with a scrubber).
Primary oxygen blow means the period in the steel production cycle of a basic oxygen process furnace during which oxygen is blown through the molten iron bath by means of a lance inserted from the top of the vessel (top-blown) or through tuyeres in the bottom and/or sides of the vessel (bottom-blown).
Responsible official means responsible official as defined in §63.2.
Secondary emissions means particulate matter emissions that are not controlled by a primary emission control system, including emissions that escape from open and closed hoods, lance hole openings, and gaps or tears in ductwork to the primary emission control system.
Secondary emission control system means the combination of equipment used for the capture and collection of secondary emissions from a basic oxygen process furnace.
Sinter cooler means the apparatus used to cool the hot sinter product that is transferred from the discharge end through contact with large volumes of induced or forced draft air.
Sinter plant means the machine used to produce a fused clinker-like aggregate or sinter of fine iron-bearing materials suited for use in a blast furnace. The machine is composed of a continuous traveling grate that conveys a bed of ore fines and other finely divided iron-bearing material and fuel (typically coke breeze), a burner at the feed end of the grate for ignition, and a series of downdraft windboxes along the length of the strand to support downdraft combustion and heat sufficient to produce a fused sinter product.
Skimming station means the locations inside a basic oxygen process furnace shop where slag is removed from the top of the molten metal bath.
Steel production cycle means the operations conducted within the basic oxygen process furnace shop that are required to produce each batch of steel. The following operations are included: scrap charging, preheating (when done), hot metal charging, primary oxygen blowing, sampling, (vessel turndown and turnup), additional oxygen blowing (when done), tapping, and deslagging. The steel production cycle begins when the scrap is charged to the furnace and ends after the slag is emptied from the vessel into the slag pot.
Top-blown furnace means any basic oxygen process furnace in which oxygen is introduced into the bath of molten iron by means of an oxygen lance inserted from the top of the vessel.
Windboxes means the compartments that provide for a controlled distribution of downdraft combustion air as it is drawn through the sinter bed of a sinter plant to make the fused sinter product.

Table 1 to Subpart FFFFF of Part 63—Emission and Opacity Limits

As required in §63.7790(a), you must comply with each applicable emission and opacity limit in the following table:

For . . .	You must comply with each of the following . .
1. Each windbox exhaust stream at an existing sinter plant.....	You must not cause to be discharged to the atmosphere any gases that contain particulate matter in excess of 0.4 lb/ton of product sinter.
3. Each discharge end at an existing sinter plant.....	a. You must not cause to be discharged to the atmosphere any gases that exit from one or more control devices that contain, on a flow-weighted basis, particulate matter in excess of 0.02 gr/dscf \1\; and b. You must not cause to be discharged to the atmosphere any secondary emissions

	that exit any opening in the building or structure housing the discharge end that exhibit opacity greater than 20 percent (6-minute average).
5. Each sinter cooler at an existing sinter plant.....	You must not cause to be discharged to the atmosphere any emissions that exhibit opac ity greater than 10 percent (6-minute avera ge).
7. Each casthouse at an existing blast furnace.....	a. You must not cause to be discharged to the atmosphere any gases that exit from a control device that contain particulate matter in excess of 0.01 gr/dscf; \2\ and b. You must not cause to be discharged to the atmosphere any secondary emissions that exit any opening in the casthouse or structure housing the blast furnace that exhibit opacity greater than 20 percent (6-minute average).
9. Each BOPF at a new or existing shop.....	a. You must not cause to be discharged to the atmosphere any gases that exit from a primary emission control system for a BOPF with a closed hood system at a new or existing BOPF shop that contain, on a flow-weighted basis, particulate matter in excess of 0.03 gr/dscf during the primary oxygen blow \2, 3\; b. You must not cause to be discharged to the atmosphere any gases that exit from a primary emission control system for a BOPF with an open hood system that contain, on a flow-weighted basis, particulate matter in excess of 0.02 gr/dscf during the steel production cycle for an existing BOPF shop \2, 3\; or 0.01 gr/dscf during during the steel production cycle for a new BOPF shop \3\; and c. You must not cause to be discharged to the atmosphere any gases that exit from a control device used solely for the collection of secondary emissions from the BOPF that contain particulate matter in excess of 0.01 gr/dscf for an existing BOPF shop\2\ or 0.0052 gr/dscf for a new BOPF shop.
10. Each hot metal transfer, skimming, and desulfurization operation devic exc	You must not cause to be discharged at a new or existing BOPF shop to the atmosphere any gases that exit from a control e that contain particulate matter in ess of 0.01 gr/dscf for an existing BOPF shop \2\. Or 0.003 gr/dscf for new BOPF shop.
11. Each ladle metallurgy operation at a new or existing BOPF shop..... devic exc	You must not cause to be discharged to the atmosphere any gases that exit from a control e that contain particulate matter in ess of 0.01 gr/dscf for an existing BOPF shop \2\ or 0.004 gr/dscf for an new BOPF

shop.	
12. Each roof monitoring at an existing BOPF shop..... atmosph buil oper perce	You must not cause to be discharged to the ere any secondary emissions that exit any opening in the BOPF shop or any other ding housing the BOPF or BOPF shop ation that exhibit opacity greater than 20 nt (3- minute average).

\1\ This limit applies if the cooler is vented to the same control device as the discharge end.
\2\ This concentration limit (gr/dscf) for a device does not apply to discharges inside a building or structure housing the discharge end at an existing sinter plant, inside the casthouse at an existing blast furnace , or inside an existing BOPF shop if the control device was installed before August 30, 2005.
\3\ This limit applies to control devices operated in parallel for a single BOPF during the oxygen blow.

Table 2 to Subpart FFFFF of Part 63—Initial Compliance with Emission and Opacity Limits

As required in §63.7825(a)(1), you must demonstrate initial compliance with the emission and opacity limits according to the following table:

For . . .	You have demonstrated initial compliance if . . .
1. Each windbox exhaust stream at an existing sinter plant.....	The process-weighted mass rate of particulate matter from a windbox exhaust stream, measured according to the performance test procedures in § 63.7822(c), did not exceed 0.4 lb/ton of product sinter.
3. Each discharge end at an existing sinter plant.....	a. The flow-weighted average concentration of particulate matter from one or more control devices applied to emissions from a discharge end, measured according to the performance test procedures in § 63.7822(d), did not exceed 0.02 gr/dscf; and
b.	The opacity of secondary emissions from each discharge end, determined according to the performance test procedures in § 63.7823(c), did not exceed 20 percent (6-minute average).
5. Each sinter cooler stack at an existing sinter plant..... accord 10	The opacity of emissions, determined ing to the performance test procedures in § 63.7823(e) did not exceed percent (6-minute average)..
7. Each casthouse at an existing blast furnace.....	a. The average concentration of particulate matter from a control device applied to emissions from a casthouse, measured according to the performance test procedures in § 63.7822(e), did not exceed 0.01 gr/dscf; and
	b. The opacity of secondary emissions from each casthouse, determined according to the performance test procedures in § 63.7823(c), did not exceed 20 percent (6-minute average).
9. Each BOPF at a new or existing BOPF shop.....	a. The average concentration of particulate matter from a primary emission control

	system applied to emissions from a BOPF with a closed hood system, measured according to the performance test procedures in § 63.7822(f), did not exceed 0.03 gr/dscf for a new or existing BOPF shop; b. The average concentration of particulate matter from a primary emission control system applied to emissions from a BOPF with an open hood system, measured according to the performance test procedures in § 63.7822(g), did not exceed 0.02 gr/dscf for an existing BOPF shop; and c. The average concentration of particulate matter from a control device applied solely to secondary emissions from a BOPF, measured according to the performance test procedures in § 63.7822(g), did not exceed 0.01 gr/dscf for an existing BOPF shop.
10. Each hot metal transfer skimming, and desulfurization at a new or existing BOPF shop…	The average concentration of particulate matter from a control device applied to emissions from hot metal transfer, skimming, or desulfurization, measured according to the performance test procedures in § 63.7822(h), did not exceed 0.01 gr/dscf for an existing BOPF shop.
11. Each ladle metallurgy operation at a new or existing BOPF shop.....	The average concentration of particulate matter from a control device applied to emissions from a ladle metallurgy operation, measured according to the performance test procedures in § 63.7822(h), did not exceed 0.01 gr/dscf for an existing BOPF shop.
12. Each roof monitor at an existing BOPF shop...	The opacity of secondary emissions from each BOPF shop, determined according to the performance test procedures in § 63.7823(d), did not exceed 20 percent (3-minute average).

Table 3 to Subpart FFFFF of Part 63—Continuous Compliance with Emission and Opacity Limits

As required in §63.7833(a), you must demonstrate continuous compliance with the emission and opacity limits according to the following table:

For . . .	You must demonstrate continuous compliance by . . .
1. Each windbox exhaust stream at an existing sinter plant...	a. Maintaining emissions of particulate matter at or below 0.4 lb/ton of product sinter; and b. Conducting subsequent performance tests frequencies specified in § 63.7821.
3. Each discharge end at an existing sinter plant.....	a. Maintaining emissions of particulate matter from one or more control devices at or below 0.02 gr/dscf; and

	b.	Maintaining the opacity of secondary emissions that exit any opening in the building or structure housing the discharge end at or below 20 percent (6-minute average); and
		c. Conducting subsequent performance tests frequencies specified in § 63.7821.
5. Each sinter cooler stack at an existing sinter plant....		a. Maintaining the opacity of emissions that exit any sinter cooler at or below 10 percent (6-minute average); and
		b. Conducting subsequent performance tests frequencies specified in § 63.7821.
7. Each casthouse at an existing blast furnace...		a. Maintaining emissions of particulate matter from a control device at or below 0.01 gr/dscf;
		b. Maintaining the opacity of secondary emissions that exit any opening in the casthouse or structure housing the blast furnace at or below 20 percent (6-minute average); and
		b. Conducting subsequent performance tests frequencies specified in § 63.7821.
9. Each BOPF at a new or existing BOPF shop....		a. Maintaining emissions of particulate matter from the primary emission control system for a BOPF with a closed hood system at or below 0.03 gr/dscf;
		b. Maintaining emissions of particulate matter from the primary emission control system for a BOPF with an open hood system at or below 0.02 gr/dscf for an existing BOPF shop or 0.01 gr/dscf for an new BOPF shop; and
		c. Maintaining emissions of particulate matter from a control device applied solely to secondary emissions from a BOPF at or below 0.01 gr/dscf for an existing BOPFshop or 0.0052 gr/dscf for a new BOPF shop; and;
		d. Conducting subsequent performance tests frequencies specified in § 63.7821.
10. Each hot metal transfer, skimming, and desulfurization operation at a new or existing BOPF shop…		a. Maintaining emissions of particulate matter from a control device at or below gr/dscf at an existing BOPF or 0.003 gr/dscf for a new BOPF; and
		b. Conducting subsequent performance tests frequencies specified in § 63.7821.
11. Each ladle metallurgy operation at a new or existing BOPF shop...		a. Maintaining emissions of particulate matter from a control device at or below 0.01r/dscf at an existing BOPF shop or 0.004 gr/dscf for a new BOPF shop; and

b. Conducting subsequent performance tests frequencies specified in § 63.7821.

12. Each roof monitor at an existing BOPF shop...

a. Maintaining the opacity of secondary emissions that exit any opening in the BOPF shop or other building housing the BOPF or shop operation at or below 20 percent (3-minute average); and

b. Conducting subsequent performance tests frequencies specified in § 63.7821.

Table 4 to Subpart FFFFF of Part 63—Applicability of General Provisions to Subpart FFFFF

As required in §63.7850, you must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) shown in the following table:

Citation	Subject	Applies to Subpart FFFFF?	Explanation
§ 63.1	Applicability	Yes	
§ 63.2	Definitions	Yes	
§ 63.3	Units and Abbreviations	Yes	
§ 63.4	Prohibited Activities	Yes	
§ 63.5	Construction/Reconstruction	Yes	
§ 63.6(a), (b), (c), (d), (e), (f), (g), (h)(2)(ii)-(h)(9).	Compliance with Standards and Maintenance Requirements.	Yes	
§ 63.6(h)(2)(i)	Determining Compliance with Opacity and VE Standards	No	Subpart FFFFFspecifies methods and procedures for determining compliance with opacity emission and operating limits.
§ 63.7(a)(1)-(2).	Applicability and Performance Test Dates	No	Subpart FFFFF specifies performance test applicability and dates.
§ 63.7(a)(3), (b), (c)-(h).	Performance Testing Requirements.	Yes..	
§ 63.8(a)(1)-(3), (b), (c)(1)- (3), (c)(4)(i)-(e), (c)(7)-(8), (d), (e), (f)(1)-(5), (g)(1)-(4).	Monitoring Requirements	Yes	CMS requirements in §63.8(c)(4)(i)-(ii), (c)(5), and (c)(6), (d) and (e) apply only to COMS
§ 63.8(a)(4)	Additional Monitoring Requirements for Control Devices in § 63.11.	No	Subpart FFFFF does not require flares.
§ 63.8(c)(4)	Continuous Monitoring System (CMS) Requirements.	No	Subpart FFFFF specifies requirements for operation of CMS.
§ 63.8(f)(6).	RATA Alternative	NO	
§ 63.9	Notification Requirements.	Yes.	Additional notifications for CMS in § 63.9(g) apply to COMS for electrostatic precipitators
§ 63.9(g)(5)	DATA Reduction	NO	Subpart FFFFF specifies data reduction requirements.
§ 63.10(a), (b)(1)-(b)(2)(xii), (b)(2)(xiv), (b)(3), (c)(1)-(6), (c)(9)-(15), (d), (e)(1)-(2), (e)(4), (f).	Recordkeeping and Reporting Requirements	Yes.	Additional records for CMS in §63.10(c)(1)-(6), (9)-(15), and reports in §63.10(d)(1)-(2) apply only to COMS.
§ 63.10(b)(2) (xi)-	CMS Records for RATA Alternative	No	

(xii)			
§ 63.10(c)(7)-(8)	Records of Excess Emissions and Parameter Monitoring Exceedances for CMS.	No.	Subpart FFFFF specifies record requirements.
§ 63.11	Control Device Requirements.	No	Subpart FFFFF does not require flares.
§ 63.12	State Authority and Delegations	Yes	
§§ 63.13-63.15	Addresses, Incorporation by Reference, Availability of Information.	Yes	

Attachment B

Subpart Y— New Source Performance Standards for Coal Preparation Plants

§ 60.250 Applicability and designation of affected facility.

(a) The provisions of this subpart are applicable to any of the following affected facilities in coal preparation plants which process more than 181 Mg (200 tons) per day: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), coal storage systems, and coal transfer and loading systems.

(b) Any facility under paragraph (a) of this section that commences construction or modification after October 24, 1974, is subject to the requirements of this subpart.

[42 FR 37938, July 25, 1977; 42 FR 44812, Sept. 7, 1977, as amended at 65 FR 61757, Oct. 17, 2000]

§ 60.251 Definitions.

As used in this subpart, all terms not defined herein have the meaning given them in the Act and in subpart A of this part.

(a) *Coal preparation plant* means any facility (excluding underground mining operations) which prepares coal by one or more of the following processes: breaking, crushing, screening, wet or dry cleaning, and thermal drying.

(b) *Bituminous coal* means solid fossil fuel classified as bituminous coal by ASTM Designation D388–77, 90, 91, 95, or 98a (incorporated by reference—see §60.17).

(c) *Coal* means all solid fossil fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM Designation D388–77, 90, 91, 95, or 98a (incorporated by reference—see §60.17).

(d) *Cyclonic flow* means a spiraling movement of exhaust gases within a duct or stack.

(e) *Thermal dryer* means any facility in which the moisture content of bituminous coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.

(f) *Pneumatic coal-cleaning equipment* means any facility which classifies bituminous coal by size or separates bituminous coal from refuse by application of air stream(s).

(g) *Coal processing and conveying equipment* means any machinery used to reduce the size of coal or to separate coal from refuse, and the equipment used to convey coal to or remove coal and refuse from the machinery. This includes, but is not limited to, breakers, crushers, screens, and conveyor belts.

(h) *Coal storage system* means any facility used to store coal except for open storage piles.

(i) *Transfer and loading system* means any facility used to transfer and load coal for shipment.

[41 FR 2234, Jan. 15, 1976, as amended at 48 FR 3738, Jan. 27, 1983; 65 FR 61757, Oct. 17, 2000]

§ 60.252 Standards for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any thermal dryer gases which:

(1) Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf).

(2) Exhibit 20 percent opacity or greater.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any pneumatic coal cleaning equipment, gases which:

(1) Contain particulate matter in excess of 0.040 g/dscm (0.017 gr/dscf).

(2) Exhibit 10 percent opacity or greater.

(c) On and after the date on which the performance test required to be conducted by §60.8 is completed, an owner or operator subject to the provisions of this subpart shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

[41 FR 2234, Jan. 15, 1976, as amended at 65 FR 61757, Oct. 17, 2000]

§ 60.253 Monitoring of operations.

(a) The owner or operator of any thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

(1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device is to be certified by the manufacturer to be accurate within ±1.7 °C (±3 °F).

(2) For affected facilities that use venturi scrubber emission control equipment:

(i) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ±1 inch water gauge.

(ii) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device is to be certified by the manufacturer to be accurate within ±5 percent of design water supply pressure. The pressure sensor or tap must be located close to the water discharge point. The Administrator may be consulted for approval of alternative locations.

(b) All monitoring devices under paragraph (a) of this section are to be recalibrated annually in accordance with procedures under §60.13(b).

[41 FR 2234, Jan. 15, 1976, as amended at 54 FR 6671, Feb. 14, 1989; 65 FR 61757, Oct. 17, 2000]

§ 60.254 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particular matter standards in §60.252 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

[54 FR 6671, Feb. 14, 1989]

Attachment C

Subpart AAAAA—National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

Source: 69 FR 416, Jan. 5, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.7080 What is the purpose of this subpart?

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for lime manufacturing plants. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations.

§ 63.7081 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a lime manufacturing plant (LMP) that is a major source, or that is located at, or is part of, a major source of hazardous air pollutant (HAP) emissions, unless the LMP is located at a kraft pulp mill, soda pulp mill, sulfite pulp mill, beet sugar manufacturing plant, or only processes sludge containing calcium carbonate from water softening processes.
(1) An LMP is an establishment engaged in the manufacture of lime product (calcium oxide, calcium oxide with magnesium oxide, or dead burned dolomite) by calcination of limestone, dolomite, shells or other calcareous substances.
(2) A major source of HAP is a plant site that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (10 tons) or more per year or any combination of HAP at a rate of 22.68 megagrams (25 tons) or more per year from all emission sources at the plant site.
(b) [Reserved]

§ 63.7082 What parts of my plant does this subpart cover?

(a) This subpart applies to each existing or new lime kiln(s) and their associated cooler(s), and processed stone handling (PSH) operations system(s) located at an LMP that is a major source.
(b) A new lime kiln is a lime kiln, and (if applicable) its associated lime cooler, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.
(c) A new PSH operations system is the equipment in paragraph (g) of this section, for which construction or reconstruction began after December 20, 2002, if you met the applicability criteria in §63.7081 at the time you began construction or reconstruction.
(d) A lime kiln or PSH operations system is reconstructed if it meets the criteria for reconstruction defined in §63.2.
(e) An existing lime kiln is any lime kiln, and (if applicable) its associated lime cooler, that does not meet the definition of a new kiln of paragraph (b) of this section.
(f) An existing PSH operations system is any PHS operations system that does not meet the definition of a new PSH operations system in paragraph (c) of this section.
(g) A PSH operations system includes all equipment associated with PSH operations beginning at the processed stone storage bin(s) or open storage pile(s) and ending where the processed stone is fed into the kiln. It includes man-made processed stone storage bins (but not open processed stone storage piles), conveying system transfer points, bulk loading or unloading systems, screening operations, surge bins, bucket elevators, and belt conveyors. No other materials processing operations are subject to this subpart.
(h) Nuisance dust collectors on lime coolers are part of the lime materials processing operations and are not covered by this subpart.
(i) Lime hydrators are not subject to this subpart.
(j) Open material storage piles are not subject to this subpart.

§ 63.7083 When do I have to comply with this subpart?

(a) If you have a new affected source, you must comply with this subpart according to paragraphs (a)(1) and (2) of this section.
(1) If you start up your affected source before January 5, 2004, you must comply with the emission limitations no later than January 5, 2004, and you must have completed all applicable performance tests no later than July 5, 2004.
(2) If you start up your affected source after January 5, 2004, then you must comply with the emission limitations for new affected sources upon startup of your affected source and you must have completed all applicable performance tests no later than 180 days after startup.
(b) If you have an existing affected source, you must comply with the applicable emission limitations for the existing affected source, and you must have completed all applicable performance tests no later than January 5, 2007.

(c) If you have an LMP that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the deadlines specified in paragraphs (c)(1) and (2) of this section apply.
(1) New affected sources at your LMP you must be in compliance with this subpart upon startup.
(2) Existing affected sources at your LMP must be in compliance with this subpart within 3 years after your source becomes a major source of HAP.
(d) You must meet the notification requirements in §63.7130 according to the schedule in §63.7130 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limitations in this subpart.

Emission Limitations

§ 63.7090 What emission limitations must I meet?

(a) You must meet each emission limit in Table 1 to this subpart that applies to you.
(b) You must meet each operating limit in Table 2 to this subpart that applies to you.

General Compliance Requirements

§ 63.7100 What are my general requirements for complying with this subpart?

(a) After your initial compliance date, you must be in compliance with the emission limitations (including operating limits) in this subpart at all times, except during periods of startup, shutdown, and malfunction.
(b) You must be in compliance with the opacity and visible emission (VE) limits in this subpart during the times specified in §63.6(h)(1).
(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).
(d) You must prepare and implement for each LMP, a written operations, maintenance, and monitoring (OM&M) plan. You must submit the plan to the applicable permitting authority for review and approval as part of the application for a 40 CFR part 70 or 40 CFR part 71 permit. Any subsequent changes to the plan must be submitted to the applicable permitting authority for review and approval. Pending approval by the applicable permitting authority of an initial or amended plan, you must comply with the provisions of the submitted plan. Each plan must contain the following information:
(1) Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit.
(2) A monitoring schedule for each emission unit.
(3) Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1 and 2 to this subpart, respectively.
(4) Procedures for the proper installation, operation, and maintenance of monitoring devices or systems used to determine compliance, including:
(i) Calibration and certification of accuracy of each monitoring device;
(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;
(iii) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), and (4)(ii); and
(iv) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d).
(5) Procedures for monitoring process and control device parameters.
(6) Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 2 to this subpart, including:
(i) Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended; and
(ii) Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.
(7) A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
(e) You must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).
[69 FR 416, Jan. 5, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

Testing and Initial Compliance Requirements

§ 63.7110 By what date must I conduct performance tests and other initial compliance demonstrations?

(a) If you have an existing affected source, you must complete all applicable performance tests within January 5, 2007, according to the provisions in §§63.7(a)(2) and 63.7114.
(b) If you have a new affected source, and commenced construction or reconstruction between December 20, 2002, and January 5, 2004, you must demonstrate initial compliance with either the proposed emission limitation or the promulgated emission limitation no later than 180 calendar days after January 5, 2004 or within 180 calendar days after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.
(c) If you commenced construction or reconstruction between December 20, 2002, and January 5, 2004, and you chose to comply with the proposed emission limitation when demonstrating initial compliance, you must conduct a demonstration of compliance with the promulgated emission limitation within January 5, 2007 or after startup of the source, whichever is later, according to §§63.7(a)(2)(ix) and 63.7114.
(d) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within existing affected sources at LMP begins at 12:01 a.m. on the compliance date for existing affected sources, that is, the day following completion of the initial compliance demonstration, and ends at 3:01 a.m. on the same day.
(e) For each initial compliance requirement in Table 3 to this subpart that applies to you where the monitoring averaging period is 3 hours, the 3-hour period for demonstrating continuous compliance for emission units within new or reconstructed affected sources at LMP begins at 12:01 a.m. on the day following completion of the initial compliance demonstration, as required in paragraphs (b) and (c) of this section, and ends at 3:01 a.m. on the same day.

§ 63.7111 When must I conduct subsequent performance tests?

You must conduct a performance test within 5 years following the initial performance test and within 5 years following each subsequent performance test thereafter.

§ 63.7112 What performance tests, design evaluations, and other procedures must I use?

(a) You must conduct each performance test in Table 4 to this subpart that applies to you.
(b) Each performance test must be conducted according to the requirements in §63.7(e)(1) and under the specific conditions specified in Table 4 to this subpart.
(c) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §63.7(e)(1).
(d) Except for opacity and VE observations, you must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.
(e) The emission rate of particulate matter (PM) from each lime kiln (and each lime cooler if there is a separate exhaust to the atmosphere from the lime cooler) must be computed for each run using Equation 1 of this section:

$$E = \left(C_k Q_k + C_c Q_c\right)/PK \qquad (Eq.\ 1)$$

Where:
E = Emission rate of PM, pounds per ton (lb/ton) of stone feed.
C_k= Concentration of PM in the kiln effluent, grain/dry standard cubic feet (gr/dscf).
Q_k= Volumetric flow rate of kiln effluent gas, dry standard cubic feet per hour (dscf/hr).
C_c= Concentration of PM in the cooler effluent, grain/dscf. This value is zero if there is not a separate cooler exhaust to the atmosphere.
Q_c= Volumetric flow rate of cooler effluent gas, dscf/hr. This value is zero if there is not a separate cooler exhaust to the atmosphere.
P = Stone feed rate, tons per hour (ton/hr).
K = Conversion factor, 7000 grains per pound (grains/lb).
(f)(1) If you choose to meet a weighted average emission limit as specified in item 4 of Table 1 to this subpart, you must calculate a combined particulate emission rate from all kilns and coolers within your LMP using Equation 2 of this section:

$$E_T = \sum_{i=1}^{n} E_i P_i / \sum_{i=1}^{n} P_i \qquad (Eq.\ 2)$$

Where:
E_T= Emission rate of PM from all kilns and coolers, lb/ton of stone feed.
E_i= Emission rate of PM from kiln i, or from kiln/cooler combination i, lb/ton of stone feed.
P_i= Stone feed rate to kiln i, ton/hr.
n = Number of kilns you wish to include in averaging.

(2) You do not have to include every kiln in this calculation, only include kilns you wish to average. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.
(g) The weighted average PM emission limit from all kilns and coolers for which you are averaging must be calculated using Equation 3 of this section:

$$E_{TN} = \sum_{j=1}^{m} E_j P_j / \sum_{j=1}^{m} P_j \qquad (Eq.\ 3)$$

Where:
E_{TN}= Weighted average PM emission limit for all kilns and coolers being included in averaging at the LMP, lb/ton of stone feed.
E_j= PM emission limit (0.10 or 0.12) for kiln j, or for kiln/cooler combination j, lb/ton of stone feed.
P_j= Stone feed rate to kiln j, ton/hr.
m = Number of kilns and kiln/cooler combinations you are averaging at your LMP. You must include the same kilns in the calculation of $E_T$and E_{TN}. Kilns that have a PM emission limit of 0.60 lb/tsf are ineligible for any averaging.
(h) Performance test results must be documented in complete test reports that contain the information required by paragraphs (h)(1) through (10) of this section, as well as all other relevant information. The plan to be followed during testing must be made available to the Administrator at least 60 days prior to testing.
(1) A brief description of the process and the air pollution control system;
(2) Sampling location description(s);
(3) A description of sampling and analytical procedures and any modifications to standard procedures;
(4) Test results, including opacity;
(5) Quality assurance procedures and results;
(6) Records of operating conditions during the test, preparation of standards, and calibration procedures;
(7) Raw data sheets for field sampling and field and laboratory analyses;
(8) Documentation of calculations;
(9) All data recorded and used to establish operating limits; and
(10) Any other information required by the test method.
(i) [Reserved]
(j) You must establish any applicable 3-hour block average operating limit indicated in Table 2 to this subpart according to the applicable requirements in Table 3 to this subpart and paragraphs (j)(1) through (4) of this section.
(1) Continuously record the parameter during the PM performance test and include the parameter record(s) in the performance test report.
(2) Determine the average parameter value for each 15-minute period of each test run.
(3) Calculate the test run average for the parameter by taking the average of all the 15-minute parameter values for the run.
(4) Calculate the 3-hour operating limit by taking the average of the three test run averages.
(k) For each building enclosing any PSH operations that is subject to a VE limit, you must conduct a VE check according to item 18 in Table 4 to this subpart, and in accordance with paragraphs (k)(1) through (3) of this section.
(1) Conduct visual inspections that consist of a visual survey of the building over the test period to identify if there are VE, other than condensed water vapor.
(2) Select a position at least 15 but not more 1,320 feet from each side of the building with the sun or other light source generally at your back.
(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 in appendix A to part 60 of this chapter.
(l) When determining compliance with the opacity standards for fugitive emissions from PSH operations in item 7 of Table 1 to this subpart, you must conduct EPA Method 9 in appendix A to part 60 of this chapter according to item 17 in Table 4 to this subpart, and in accordance with paragraphs (l)(1) through (3) of this section.
(1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
(2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (*e.g.,* road dust). The required observer position relative to the sun must be followed.
(3) If you use wet dust suppression to control PM from PSH operations, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered VE. When a water mist of this nature is present, you must observe emissions at a point in the plume where the mist is no longer visible.

§ 63.7113 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to your OM&M plan required by §63.7100(d) and paragraphs (a)(1) through (5) of this section, and you must install, operate, and maintain each continuous opacity monitoring system (COMS) as required by paragraph (g) of this section

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.
(2) To calculate a valid hourly value, you must have at least four equally spaced data values (or at least two, if that condition is included to allow for periodic calibration checks) for that hour from a CPMS that is not out of control according your OM&M plan, and use all valid data.
(3) To calculate the average for each 3-hour block averaging period, you must use all valid data, and you must have at least 66 percent of the hourly averages for that period using only hourly average values that are based on valid data (*i.e.,* not from out-of-control periods).
(4) You must conduct a performance evaluation of each CPMS in accordance with your OM&M plan.
(5) You must continuously operate and maintain the CPMS according to the OM&M plan, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
(b) For each flow measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of this section.
(1) Use a flow sensor with a minimum tolerance of 2 percent of the flow rate.
(2) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.
(3) Conduct a flow sensor calibration check at least semiannually.
(4) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.
(c) For each pressure measurement device, you must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of this section.
(1) Locate the pressure sensor(s) in or as close to as possible a position that provides a representative measurement of the pressure.
(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.
(3) Use a gauge with a minimum tolerance of 0.5 inch of water or a transducer with a minimum tolerance of 1 percent of the pressure range.
(4) Check pressure tap pluggage daily.
(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.
(6) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.
(7) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.
(d) For each bag leak detection system (BLDS), you must meet any applicable requirements in paragraphs (a)(1) through (5) and (d)(1) through (8) of this section.
(1) The BLDS must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
(2) The sensor on the BLDS must provide output of relative PM emissions.
(3) The BLDS must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.
(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.
(5) For a positive-pressure fabric filter (FF), each compartment or cell must have a bag leak detector (BLD). For a negative-pressure or induced-air FF, the BLD must be installed downstream of the FF. If multiple BLD are required (for either type of FF), the detectors may share the system instrumentation and alarm.
(6) Bag leak detection systems must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.
(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:
(i) Adjust the range and the averaging period of the device.
(ii) Establish the alarm set points and the alarm delay time.
(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by §63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official, as defined in §63.2, certifies in writing to the Administrator that the FF has been inspected and found to be in good operating condition.
(e) For each PM detector, you must meet any applicable requirements in paragraphs (a)(1) through (5) and (e)(1) through (8) of this section.
(1) The PM detector must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
(2) The sensor on the PM detector must provide output of relative PM emissions.
(3) The PM detector must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than a preset level.
(4) The alarm must be located in an area where appropriate plant personnel will be able to hear it.

(5) For a positive-pressure electrostatic precipitator (ESP), each compartment must have a PM detector. For a negative-pressure or induced-air ESP, the PM detector must be installed downstream of the ESP. If multiple PM detectors are required (for either type of ESP), the detectors may share the system instrumentation and alarm.
(6) Particulate matter detectors must be installed, operated, adjusted, and maintained according to the manufacturer's written specifications and recommendations. Standard operating procedures must be incorporated into the OM&M plan.
(7) At a minimum, initial adjustment of the system must consist of establishing the baseline output in both of the following ways:
(i) Adjust the range and the averaging period of the device.
(ii) Establish the alarm set points and the alarm delay time.
(8) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the OM&M plan required by §63.7100(d). In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365-day period unless a responsible official as defined in §63.2 certifies in writing to the Administrator that the ESP has been inspected and found to be in good operating condition.
(f) For each emission unit equipped with an add-on air pollution control device, you must inspect each capture/collection and closed vent system at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in item 6 of Table 2 to this subpart and record the results of each inspection.
(g) For each COMS used to monitor an add-on air pollution control device, you must meet the requirements in paragraphs (g)(1) and (2) of this section.
(1) Install the COMS at the outlet of the control device.
(2) Install, maintain, calibrate, and operate the COMS as required by 40 CFR part 63, subpart A, General Provisions and according to Performance Specification (PS)–1 of appendix B to part 60 of this chapter. Facilities that operate COMS installed on or before February 6, 2001, may continue to meet the requirements in effect at the time of COMS installation unless specifically required to re-certify the COMS by their permitting authority.

§ 63.7114 How do I demonstrate initial compliance with the emission limitations standard?

(a) You must demonstrate initial compliance with each emission limit in Table 1 to this subpart that applies to you, according to Table 3 to this subpart. For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (a)(1) through (3) of this section exist:
(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or
(2) The control device exhausts through a monovent; or
(3) The installation of a COMS in accordance with PS–1 of appendix B to part 60 is infeasible.
(b) You must establish each site-specific operating limit in Table 2 to this subpart that applies to you according to the requirements in §63.7112(j) and Table 4 to this subpart. Alternative parameters may be monitored if approval is obtained according to the procedures in §63.8(f)
(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.7130(e).

Continuous Compliance Requirements

§ 63.7120 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section.
(b) Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), and except for PSH operations subject to monthly VE testing, you must monitor continuously (or collect data at all required intervals) at all times that the emission unit is operating.
(c) Data recorded during the conditions described in paragraphs (c)(1) through (3) of this section may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.
(1) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments;
(2) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and
(3) Start-ups, shutdowns, and malfunctions.

§ 63.7121 How do I demonstrate continuous compliance with the emission limitations standard?

(a) You must demonstrate continuous compliance with each emission limitation in Tables 1 and 2 to this subpart that applies to you according to the methods specified in Tables 5 and 6 to this subpart.

(b) You must report each instance in which you did not meet each operating limit, opacity limit, and VE limit in Tables 2 and 6 to this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. These instances are deviations from the emission limitations in this subpart. These deviations must be reported according to the requirements in §63.7131.
(c) [Reserved]
(d) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).
(e) For each PSH operation subject to an opacity limit as specified in Table 1 to this subpart, and any vents from buildings subject to an opacity limit, you must conduct a VE check according to item 1 in Table 6 to this subpart, and as follows:
(1) Conduct visual inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are VE, other than condensed water vapor.
(2) Select a position at least 15 but not more 1,320 feet from the affected emission point with the sun or other light source generally at your back.
(3) The observer conducting the VE checks need not be certified to conduct EPA Method 9 in appendix A to part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to part 60 of this chapter.
(f) For existing lime kilns and their associated coolers, you may perform VE measurements in accordance with EPA Method 9 of appendix A to part 60 in lieu of installing a COMS or PM detector if any of the conditions in paragraphs (f)(1) or (3) of this section exist:
(1) You use a FF for PM control, and the FF is under positive pressure and has multiple stacks; or
(2) The control device exhausts through a monovent; or
(3) The installation of a COMS in accordance with PS–1 of appendix B to part 60 is infeasible.
[69 FR 416, Jan. 5, 2004, as amended at 71 FR 20467, Apr. 20, 2006]

Notification, Reports, and Records

§ 63.7130 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.6(h)(4) and (5); 63.7(b) and (c); 63.8(e); (f)(4) and (6); and 63.9 (a) through (j) that apply to you, by the dates specified.
(b) As specified in §63.9(b)(2), if you start up your affected source before January 5, 2004, you must submit an initial notification not later than 120 calendar days after January 5, 2004.
(c) If you startup your new or reconstructed affected source on or after January 5, 2004, you must submit an initial notification not later than 120 calendar days after you start up your affected source.
(d) If you are required to conduct a performance test, you must submit a notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin, as required in §63.7(b)(1).
(e) If you are required to conduct a performance test, design evaluation, opacity observation, VE observation, or other initial compliance demonstration as specified in Table 3 or 4 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).
(1) For each initial compliance demonstration required in Table 3 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.
(2) For each compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 4 to this subpart, you must 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 §63.10(d)(2).

§ 63.7131 What reports must I submit and when?

(a) You must submit each report listed in Table 7 to this subpart that applies to you.
(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date specified in Table 7 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section:
(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7083 and ending on June 30 or December 31, whichever date is the first date following the end of the first half calendar year after the compliance date that is specified for your source in §63.7083.
(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first half calendar year after the compliance date that is specified for your affected source in §63.7083.
(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
(5) For each affected source that is subject to permitting regulations pursuant to part 70 or part 71 of this chapter, if the permitting authority has established dates for submitting semiannual reports pursuant to §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates specified in paragraphs (b)(1) through (4) of this section.
(c) The compliance report must contain the information specified in paragraphs (c)(1) through (6) of this section.
(1) Company name and address.
(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
(3) Date of report and beginning and ending dates of the reporting period.
(4) If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i).
(5) If there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that apply to you, the compliance report must include a statement that there were no deviations from the emission limitations during the reporting period.
(6) If there were no periods during which the continuous monitoring systems (CMS) were out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS were out-of-control during the reporting period.
(d) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) that occurs at an affected source where you are not using a CMS to comply with the emission limitations in this subpart, the compliance report must contain the information specified in paragraphs (c)(1) through (4) and (d)(1) and (2) of this section. The deviations must be reported in accordance with the requirements in §63.10(d).
(1) The total operating time of each emission unit during the reporting period.
(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
(e) For each deviation from an emission limitation (emission limit, operating limit, opacity limit, and VE limit) occurring at an affected source where you are using a CMS to comply with the emission limitation in this subpart, you must include the information specified in paragraphs (c)(1) through (4) and (e)(1) through (11) of this section. This includes periods of startup, shutdown, and malfunction.
(1) The date and time that each malfunction started and stopped.
(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.
(3) The date, time and duration that each CMS was out-of-control, including the information in §63.8(c)(8).
(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.
(5) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total affected source operating time during that reporting period.
(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.
(7) A summary of the total duration of CMS downtime during the reporting period and the total duration of CMS downtime as a percent of the total emission unit operating time during that reporting period.
(8) A brief description of the process units.
(9) A brief description of the CMS.
(10) The date of the latest CMS certification or audit.
(11) A description of any changes in CMS, processes, or controls since the last reporting period.
(f) Each facility that has obtained a title V operating permit pursuant to part 70 or part 71 of this chapter must report all deviations as defined in this subpart in the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter. If you submit a compliance report specified in Table 7 to this subpart along with, or as part of, the semiannual monitoring report required by §§70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A) of this chapter, and the compliance report includes all required information concerning deviations from any emission limitation (including any operating limit), submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation you may have to report deviations from permit requirements to the permit authority.

§ 63.7132 What records must I keep?

(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.
(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).
(2) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
(3) Records of performance tests, performance evaluations, and opacity and VE observations as required in §63.10(b)(2)(viii).

(b) You must keep the records in §63.6(h)(6) for VE observations.
(c) You must keep the records required by Tables 5 and 6 to this subpart to show continuous compliance with each emission limitation that applies to you.
(d) You must keep the records which document the basis for the initial applicability determination as required under §63.7081.

§ 63.7133 In what form and for how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).
(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

Other Requirements and Information

§ 63.7140 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. When there is overlap between subpart A and subpart AAAAA, as indicated in the “Explanations” column in Table 8, subpart AAAAA takes precedence.

§ 63.7141 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by us, the U.S. EPA, or by a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.
(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
(c) The authorities that will not be delegated to State, local, or tribal agencies are as specified in paragraphs (c)(1) through (6) of this section.
(1) Approval of alternatives to the non-opacity emission limitations in §63.7090(a).
(2) Approval of alternative opacity emission limitations in §63.7090(a).
(3) Approval of alternatives to the operating limits in §63.7090(b).
(4) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
(5) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
(6) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.7142 What are the requirements for claiming area source status?

(a) If you wish to claim that your LMP is an area source, you must measure the emissions of hydrogen chloride from all lime kilns, except as provided in paragraph (c) of this section, at your plant using either:
(1) EPA Method 320 of appendix A to this part,
(2) EPA Method 321 of appendix A to this part, or
(3) ASTM Method D6735–01, Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources—Impinger Method, provided that the provisions in paragraphs (a)(3)(i) through (vi) of this section are followed.
(i) A test must include three or more runs in which a pair of samples is obtained simultaneously for each run according to section 11.2.6 of ASTM Method D6735–01.
(ii) You must calculate the test run standard deviation of each set of paired samples to quantify data precision, according to Equation 1 of this section:

$$RSD_a = (100)\ Absolute\ Value \left[\frac{C1_a - C2_a}{C1_a + C2_a} \right] \qquad (Eq.\ 1)$$

Where:
RSD_a= The test run relative standard deviation of sample pair a, percent.
$C1_a$and $C2_a$= The HCl concentrations, milligram/dry standard cubic meter(mg/dscm), from the paired samples.
(iii) You must calculate the test average relative standard deviation according to Equation 2 of this section:

$$RSD_{TA} = \frac{\sum_{a=1}^{p} RSD_a}{p} \qquad (Eq.\ 2)$$

Where:
RSD_{TA}= The test average relative standard deviation, percent.
RSD_a= The test run relative standard deviation for sample pair a.
p = The number of test runs, ≥3.
(iv) If RSD^{TA} is greater than 20 percent, the data are invalid and the test must be repeated.
(v) The post-test analyte spike procedure of section 11.2.7 of ASTM Method D6735–01 is conducted, and the percent recovery is calculated according to section 12.6 of ASTM Method D6735–01.
(vi) If the percent recovery is between 70 percent and 130 percent, inclusive, the test is valid. If the percent recovery is outside of this range, the data are considered invalid, and the test must be repeated.
(b) If you conduct tests to determine the rates of emission of specific organic HAP from lime kilns at LMP for use in applicability determinations under §63.7081, you may use either:
(1) Method 320 of appendix A to this part, or
(2) Method 18 of appendix A to part 60 of this chapter, or
(3) ASTM D6420–99, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry (GC/MS), provided that the provisions of paragraphs (b)(3)(i) through (iv) of this section are followed:
(i) The target compound(s) are those listed in section 1.1 of ASTM D6420–99;
(ii) The target concentration is between 150 parts per billion by volume and 100 parts per million by volume;
(iii) For target compound(s) not listed in Table 1.1 of ASTM D6420–99, but potentially detected by mass spectrometry, the additional system continuing calibration check after each run, as detailed in section 10.5.3 of ASTM D6420–99, is conducted, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water soluble; and
(iv) For target compound(s) not listed in Table 1.1 of ASTM D6420–99, and not amenable to detection by mass spectrometry, ASTM D6420–99 may not be used.
(c) It is left to the discretion of the permitting authority whether or not idled kilns must be tested for (HCl) to claim area source status. If the facility has kilns that use common feed materials and fuel, are essentially identical in design, and use essentially identical emission controls, the permitting authority may also determine if one kiln can be tested, and the HCl emissions for the other essentially identical kilns be estimated from that test.

§ 63.7143 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:
Bag leak detector system (BLDS) is a type of PM detector used on FF to identify an increase in PM emissions resulting from a broken filter bag or other malfunction and sound an alarm.
Belt conveyor means a conveying device that transports *processed stone* from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.
Bucket elevator means a *processed stone* conveying device consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.
Building means any frame structure with a roof.
Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport PM to a control device.
Control device means the air pollution control equipment used to reduce PM emissions released to the atmosphere from one or more process operations at an LMP.
Conveying system means a device for transporting *processed stone* from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to feeders, belt conveyors, bucket elevators and pneumatic systems.
Deviation means any instance in which an affected source, subject to this subpart, or an owner or operator of such a source:
(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation (including any operating limit);
(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
(3) Fails to meet any emission limitation (including any operating limit) in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is allowed by this subpart.
Emission limitation means any emission limit, opacity limit, operating limit, or VE limit.
Emission unit means a lime kiln, lime cooler, storage bin, conveying system transfer point, bulk loading or unloading operation, bucket elevator or belt conveyor at an LMP.
Fugitive emission means PM that is not collected by a capture system.

Hydrator means the device used to produce hydrated lime or calcium hydroxide via the chemical reaction of the lime product with water.
Lime cooler means the device external to the lime kiln (or part of the lime kiln itself) used to reduce the temperature of the lime produced by the kiln.
Lime kiln means the device, including any associated preheater, used to produce a lime product from stone feed by calcination. Kiln types include, but are not limited to, rotary kiln, vertical kiln, rotary hearth kiln, double-shaft vertical kiln, and fluidized bed kiln.
Lime manufacturing plant (LMP) means any plant which uses a lime kiln to produce lime product from limestone or other calcareous material by calcination.
Lime product means the product of the lime kiln calcination process including, calcitic lime, dolomitic lime, and dead-burned dolomite.
Limestone means the material comprised primarily of calcium carbonate (referred to sometimes as calcitic or high calcium limestone), magnesium carbonate, and/or the double carbonate of both calcium and magnesium (referred to sometimes as dolomitic limestone or dolomite).
Monovent means an exhaust configuration of a building or emission control device (*e.g.,* positive pressure FF) that extends the length of the structure and has a width very small in relation to its length (*i.e.,* length-to-width ratio is typically greater than 5:1). The exhaust may be an open vent with or without a roof, louvered vents, or a combination of such features.
Particulate matter (PM) detector means a system that is continuously capable of monitoring PM loading in the exhaust of FF or ESP in order to detect bag leaks, upset conditions, or control device malfunctions and sounds an alarm at a preset level. A PM detector system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effects to continuously monitor relative particulate loadings. A BLDS is a type of PM detector.
Positive pressure FF or ESP means a FF or ESP with the fan(s) on the upstream side of the control device.
Process stone handling operations means the equipment and transfer points between the equipment used to transport *processed stone,* and includes, storage bins, conveying system transfer points, bulk loading or unloading systems, screening operations, bucket elevators, and belt conveyors.
Processed stone means limestone or other calcareous material that has been processed to a size suitable for feeding into a lime kiln.
Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series and retaining oversize material on the mesh surfaces (screens).
Stack emissions means the PM that is released to the atmosphere from a capture system or control device.
Storage bin means a manmade enclosure for storage (including surge bins) of *processed stone* prior to the lime kiln.
Transfer point means a point in a conveying operation where the material is transferred to or from a belt conveyor.
Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying PM emissions from one or more emission units.

Table 1 to Subpart AAAAA of Part 63—Emission Limits

As required in §63.7090(a), you must meet each emission limit in the following table that applies to you.

For . . .	You must meet the following emission limit
1. Existing lime kilns and their associated lime coolers that did not have a wet scrubber installed and operating prior to January 5, 2004	PM emissions must not exceed 0.12 pounds per ton of stone feed (lb/tsf).
2. Existing lime kilns and their associated lime coolers that have a wet scrubber, where the scrubber itself was installed and operating prior to January 5, 2004	PM emissions must not exceed 0.60 lb/tsf. If at any time after January 5, 2004 the kiln changes to a dry control system, then the PM emission limit in item 1 of this Table 1 applies, and the kiln is hereafter ineligible for the PM emission limit in item 2 of this Table 1 regardless of the method of PM control.
3. New lime kilns and their associated lime coolers	PM emissions must not exceed 0.10 lb/tsf.
4. All existing and new lime kilns and their associated coolers at your LMP, and you choose to average PM emissions, except that any kiln that is allowed to meet the 0.60 lb/tsf PM emission limit is ineligible	Weighted average PM emissions calculated according to Eq. 2 in §63.7112 must not exceed 0.12 lb/tsf (if you are averaging only existing kilns) or 0.10 lb/tsf (if you are averaging only new kilns). If you are averaging existing and new kilns, your weighted average PM emissions must not exceed the weighted

For . . .	You must meet the following emission limit
for averaging	average emission limit calculated according to Eq. 3 in §63.7112, except that no new kiln and its associated cooler considered alone may exceed an average PM emissions limit of 0.10 lb/tsf.
5. Stack emissions from all PSH operations at a new or existing affected source	PM emissions must not exceed 0.05 grams per dry standard cubic meter (g/dscm).
6. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity.
7. Fugitive emissions from all PSH operations at a new or existing affected source, except as provided by item 8 of this Table 1	Emissions must not exceed 10 percent opacity.
8. All PSH operations at a new or existing affected source enclosed in a building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations in items 5 through 7 of this Table 1, or the building must comply with the following: There must be no VE from the building, except from a vent; and vent emissions must not exceed the stack emissions limitations in items 5 and 6 of this Table 1.
9. Each FF that controls emissions from only an individual, enclosed storage bin	Emissions must not exceed 7 percent opacity.
10. Each set of multiple storage bins at a new or existing affected source, with combined stack emissions	You must comply with the emission limits in items 5 and 6 of this Table 1.

Table 2 to Subpart AAAAA of Part 63—Operating Limits

As required in §63.7090(b), you must meet each operating limit in the following table that applies to you.

For . . .	You must . . .
1. Each lime kiln and each lime cooler (if there is a separate exhaust to the atmosphere from the associated lime cooler) equipped with an FF	Maintain and operate the FF such that the BLDS or PM detector alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period; and comply with the requirements in §63.7113(d) through (f) and Table 5 to this subpart. In lieu of a BLDS or PM detector maintain the FF such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent; and comply with the requirements in §63.7113(f) and (g) and Table 5 to this subpart.
2. Each lime kiln equipped with a wet scrubber	Maintain the 3-hour block exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the most recent PM performance test; and maintain the 3-hour block scrubbing liquid flow rate greater than the flow rate operating limit established during the most recent performance test.
3. Each lime kiln equipped with an electrostatic precipitator	Install a PM detector and maintain and operate the ESP such that the PM detector alarm is not activated and alarm condition does not exist for more than 5 percent of the total operating time in a 6-month period, and

	comply with §63.7113(e); or, maintain the ESP such that the 6-minute average opacity for any 6-minute block period does not exceed 15 percent, and comply with the requirements in §63.7113(g); and comply with the requirements in §63.7113(f) and Table 5 to this subpart.
4. Each PSH operation subject to a PM limit which uses a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test.
5. All affected sources	Prepare a written OM&M plan; the plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required in Table 5 to this subpart.
6. Each emission unit equipped with an add-on air pollution control device	a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to an FF; and b. Operate each capture/collection system according to the procedures and requirements in the OM&M plan.

Table 3 to Subpart AAAAA of Part 63—Initial Compliance With Emission Limits

As required in §63.7114, you must demonstrate initial compliance with each emission limitation that applies to you, according to the following table.

For . . .	For the following emission limit . . .	You have demonstrated initial compliance, if after following the requirements in §63.7112 . . .
1. All new or existing lime kilns and their associated lime coolers (kilns/coolers)	PM emissions must not exceed 0.12 lb/tsf for all existing kilns/coolers with dry controls, 0.60 lb/tsf for existing kilns/coolers with wet scrubbers, 0.10 lb/tsf for all new kilns/coolers, or a weighted average calculated according to Eq. 3 in §63.7112	The kiln outlet PM emissions (and if applicable, summed with the separate cooler PM emissions), based on the PM emissions measured using Method 5 in appendix A to part 60 of this chapter and the stone feed rate measurement over the period of initial performance test, do not exceed the emission limit; if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions with a BLDS or PM detector, you have installed and are operating the monitoring device according to the requirements in §63.7113(d) or (e), respectively; and if the lime kiln is controlled by an FF or ESP and you are opting to monitor PM emissions using a COMS, you have installed and are operating the COMS according to the requirements in §63.7113(g).
2. Stack emissions from all PHS operations at a new or existing affected source	PM emissions must not exceed 0.05 g/dscm	The outlet PM emissions, based on Method 5 or Method 17 in appendix A to part 60 of this chapter, over the period of the initial performance test do not exceed 0.05 g/dscm; and if the emission unit is controlled with a wet scrubber, you have

For . . .	For the following emission limit . . .	You have demonstrated initial compliance, if after following the requirements in §63.7112 . . .
		a record of the scrubber's pressure drop and liquid flow rate operating parameters over the 3-hour performance test during which emissions did not exceed the emissions limitation.
3. Stack emissions from all PSH operations at a new or existing affected source, unless the stack emissions are discharged through a wet scrubber control device	Emissions must not exceed 7 percent opacity	Each of the thirty 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit. At least thirty 6-minute averages must be obtained.
4. Fugitive emissions from all PSH operations at a new or existing affected source	Emissions must not exceed 10 percent opacity	Each of the 6-minute opacity averages during the initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 10 percent opacity limit.
5. All PSH operations at a new or existing affected source, enclosed in building	All of the individually affected PSH operations must comply with the applicable PM and opacity emission limitations for items 2 through 4 of this Table 3, or the building must comply with the following: There must be no VE from the building, except from a vent, and vent emissions must not exceed the emission limitations in items 2 and 3 of this Table 3	All the PSH operations enclosed in the building have demonstrated initial compliance according to the applicable requirements for items 2 through 4 of this Table 3; or if you are complying with the building emission limitations, there are no VE from the building according to item 18 of Table 4 to this subpart and §63.7112(k), and you demonstrate initial compliance with applicable building vent emissions limitations according to the requirements in items 2 and 3 of this Table 3.
6. Each FF that controls emissions from only an individual storage bin	Emissions must not exceed 7 percent opacity	Each of the ten 6-minute averages during the 1-hour initial compliance period, using Method 9 in appendix A to part 60 of this chapter, does not exceed the 7 percent opacity limit.
7. Each set of multiple storage bins with combined stack emissions	You must comply with emission limitations in items 2 and 3 of this Table 3	You demonstrate initial compliance according to the requirements in items 2 and 3 of this Table 3.

Table 4 to Subpart AAAAA of Part 63—Requirements for Performance Tests

As required in §63.7112, you must conduct each performance test in the following table that applies to you.

For . . .	You must . . .	Using . . .	According to the following requirements . . .
1. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Select the location of the sampling port and the number of traverse ports	Method 1 or 1A of appendix A to part 60 of this chapter; and §63.6(d)(1)(i)	Sampling sites must be located at the outlet of the control device(s) and prior to any releases to the atmosphere.
2. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Determine velocity and volumetric flow rate	Method 2, 2A, 2C, 2D, 2F, or 2G in appendix A to part 60 of this chapter	Not applicable.
3. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Conduct gas molecular weight analysis	Method 3, 3A, or 3B in appendix A to part 60 of this chapter	Not applicable.
4. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler	Measure moisture content of the stack gas	Method 4 in appendix A to part 60 of this chapter	Not applicable.
5. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from the associated lime cooler, and which uses a negative pressure PM control device	Measure PM emissions	Method 5 in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e); the minimum sampling volume must be 0.85 dry standard cubic meter (dscm) (30 dry standard cubic foot (dscf)); if there is a separate lime cooler exhaust to the atmosphere, you must conduct the Method 5 test of the cooler exhaust concurrently with the kiln exhaust test.
6. Each lime kiln and each associated lime cooler, if there is a separate exhaust to the atmosphere from	Measure PM emissions	Method 5D in appendix A to part 60 of this chapter	Conduct the test(s) when the source is operating at representative operating conditions in accordance with §63.7(e); if there is a separate lime cooler

For . . .	You must . . .	Using . . .	According to the following requirements . . .
the associated lime cooler, and which uses a positive pressure FF or ESP			exhaust to the atmosphere, you must conduct the Method 5 test of the separate cooler exhaust concurrently with the kiln exhaust test.
7. Each lime kiln	Determine the mass rate of stone feed to the kiln during the kiln PM emissions test	Any suitable device	Calibrate and maintain the device according to manufacturer's instructions; the measuring device used must be accurate to within ±5 percent of the mass rate of stone feed over its operating range.
8. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average gas stream pressure drop across the wet scrubber	Data for the gas stream pressure drop measurement device during the kiln PM performance test	The continuous pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
9. Each lime kiln equipped with a wet scrubber	Establish the operating limit for the average liquid flow rate to the scrubber	Data from the liquid flow rate measurement device during the kiln PM performance test	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
10. Each lime kiln equipped with a FF or ESP that is monitored with a PM detector	Have installed and have operating the BLDS or PM detector prior to the performance test	Standard operating procedures incorporated into the OM&M plan	According to the requirements in §63.7113(d) or (e), respectively.
11. Each lime kiln equipped with a FF or ESP that is monitored with a COMS	Have installed and have operating the COMS prior to the performance test	Standard operating procedures incorporated into the OM&M plan and as required by 40 CFR part 63, subpart A, General Provisions and according to PS–1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2)	According to the requirements in §63.7113(g).
12. Each stack emission from a PSH operation, vent from a building enclosing a	Measure PM emissions	Method 5 or Method 17 in appendix A to part 60 of this chapter	The sample volume must be at least 1.70 dscm (60 dscf); for Method 5, if the gas stream being sampled is at ambient temperature,

For . . .	You must . . .	Using . . .	According to the following requirements . . .
PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to a PM emission limit			the sampling probe and filter may be operated without heaters; and if the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter (Method 17 may be used only with exhaust gas temperatures of not more than 250 °F).
13. Each stack emission from a PSH operation, vent from a building enclosing a PSH operation, or set of multiple storage bins with combined stack emissions, which is subject to an opacity limit	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 3 hours and you must obtain at least thirty, 6-minute averages.
14. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber	Establish the average gas stream pressure drop across the wet scrubber	Data for the gas stream pressure drop measurement device during the PSH operation stack PM performance test	The pressure drop measurement device must be accurate within plus or minus 1 percent; you must collect the pressure drop data during the period of the performance test and determine the operating limit according to §63.7112(j).
15. Each stack emissions source from a PSH operation subject to a PM or opacity limit, which uses a wet scrubber	Establish the operating limit for the average liquid flow rate to the scrubber	Data from the liquid flow rate measurement device during the PSH operation stack PM performance test	The continuous scrubbing liquid flow rate measuring device must be accurate within plus or minus 1 percent; you must collect the flow rate data during the period of the performance test and determine the operating limit according to §63.7112(j).
16. Each FF that controls emissions from only an individual, enclosed, new or existing storage bin	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 1 hour and you must obtain ten 6-minute averages.
17. Fugitive emissions from any PSH operation subject to an opacity limit	Conduct opacity observations	Method 9 in appendix A to part 60 of this chapter	The test duration must be for at least 3 hours, but the 3-hour test may be reduced to 1 hour if, during the first 1-hour period, there are no individual readings greater than 10 percent opacity and there are no more than three readings of 10

For . . .	You must . . .	Using . . .	According to the following requirements . . .
			percent during the first 1-hour period.
18. Each building enclosing any PSH operation, that is subject to a VE limit	Conduct VE check	The specifications in §63.7112(k)	The performance test must be conducted while all affected PSH operations within the building are operating; the performance test for each affected building must be at least 75 minutes, with each side of the building and roof being observed for at least 15 minutes.

Table 5 to Subpart AAAAA of Part 63—Continuous Compliance With Operating Limits

As required in §63.7121, you must demonstrate continuous compliance with each operating limit that applies to you, according to the following table:

For . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
1. Each lime kiln controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
2. Each lime kiln or lime cooler equipped with a FF and using a BLDS, and each lime kiln equipped with an ESP or FF using a PM detector	a. Maintain and operate the FF or ESP such that the bag leak or PM detector alarm, is not activated and alarm condition does not exist for more than 5 percent of the total operating time in each 6-month period	(i) Operating the FF or ESP so that the alarm on the bag leak or PM detection system is not activated and an alarm condition does not exist for more than 5 percent of the total operating time in each 6-month reporting period; and continuously recording the output from the BLD or PM detection system; and
		(ii) Each time the alarm sounds and the owner or operator initiates corrective actions within 1 hour of the alarm, 1 hour of alarm time will be counted (if the owner or operator takes longer than 1 hour to initiate corrective actions, alarm time will be counted as the actual amount of time taken

For . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
		by the owner or operator to initiate corrective actions); if inspection of the FF or ESP system demonstrates that no corrective actions are necessary, no alarm time will be counted.
3. Each stack emissions source from a PSH operation subject to an opacity limit, which is controlled by a wet scrubber	Maintain the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintain the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test	Collecting the wet scrubber operating data according to all applicable requirements in §63.7113 and reducing the data according to §63.7113(a); maintaining the 3-hour block average exhaust gas stream pressure drop across the wet scrubber greater than or equal to the pressure drop operating limit established during the PM performance test; and maintaining the 3-hour block average scrubbing liquid flow rate greater than or equal to the flow rate operating limit established during the performance test (the continuous scrubbing liquid flow rate measuring device must be accurate within ±1% and the continuous pressure drop measurement device must be accurate within ±1%).
4. For each lime kiln or lime cooler equipped with a FF or an ESP that uses a COMS as the monitoring device	a. Maintain and operate the FF or ESP such that the average opacity for any 6-minute block period does not exceed 15 percent	i. Installing, maintaining, calibrating and operating a COMS as required by 40 CFR part 63, subpart A, General Provisions and according to PS–1 of appendix B to part 60 of this chapter, except as specified in §63.7113(g)(2); and
		ii. Collecting the COMS data at a frequency of at least once every 15 seconds, determining block averages for each 6-minute period and demonstrating for each 6-minute block period the average opacity does not exceed 15 percent.

Table 6 to Subpart AAAAA of Part 63—Periodic Monitoring for Compliance With Opacity and Visible Emissions Limits

As required in §63.7121 you must periodically demonstrate compliance with each opacity and VE limit that applies to you, according to the following table:

For . . .	For the following emission limitation . . .	You must demonstrate ongoing compliance . . .
1. Each PSH operation subject to an opacity limitation as required in Table 1 to this subpart, or any vents from buildings subject to an opacity limitation	a. 7–10 percent opacity, depending on the PSH operation, as required in Table 1 to this subpart	(i) Conducting a monthly 1-minute VE check of each emission unit in accordance with §63.7121(e); the check must be conducted while the affected source is in operation; (ii) If no VE are observed in 6 consecutive monthly checks for any emission unit, you may decrease the frequency of VE checking from monthly to semi-annually

For . . .	For the following emission limitation . . .	You must demonstrate ongoing compliance . . .
		for that emission unit; if VE are observed during any semiannual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks;
		(iii) If no VE are observed during the semiannual check for any emission unit, you may decrease the frequency of VE checking from semi-annually to annually for that emission unit; if VE are observed during any annual check, you must resume VE checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and
		(iv) If VE are observed during any VE check, you must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter; you must begin the Method 9 test within 1 hour of any observation of VE and the 6-minute opacity reading must not exceed the applicable opacity limit.
2. Any building subject to a VE limit, according to item 8 of Table 1 to this subpart	a. No VE	(i) Conducting a monthly VE check of the building, in accordance with the specifications in §63.7112(k); the check must be conducted while all the enclosed PSH operations are operating; (ii) The check for each affected building must be at least 5 minutes, with each side of the building and roof being observed for at least 1 minute;
		(iii) If no VE are observed in 6 consecutive monthly checks of the building, you may decrease the frequency of checking from monthly to semi-annually for that affected source; if VE are observed during any semi-annual check, you must resume checking on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks; and
		(iv) If no VE are observed during the semi-annual check, you may decrease the frequency of checking from semi-annually to annually for that affected source; and if VE are observed during any annual check, you must resume checking of that emission unit on a monthly basis and maintain that schedule until no VE are observed in 6 consecutive monthly checks (the source is in compliance if no VE are observed during any of these checks).

Table 7 to Subpart AAAAA of Part 63—Requirements for Reports

As required in §63.7131, you must submit each report in this table that applies to you.

You must submit a . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report	a. If there are no deviations from any emission limitations (emission limit, operating limit, opacity limit, and VE limit) that applies to you, a statement that there were no deviations from the emission limitations during the reporting period;	Semiannually according to the requirements in §63.7131(b).
	b. If there were no periods during which the CMS, including any operating parameter monitoring system, was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period;	Semiannually according to the requirements in §63.7131(b).
	c. If you have a deviation from any emission limitation (emission limit, operating limit, opacity limit, and VE limit) during the reporting period, the report must contain the information in §63.7131(d);	Semiannually according to the requirements in §63.7131(b).
	d. If there were periods during which the CMS, including any operating parameter monitoring system, was out-of-control, as specified in §63.8(c)(7), the report must contain the information in §63.7131(e); and	Semiannually according to the requirements in §63.7131(b).
	e. If you had a startup, shutdown or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in §63.10(d)(5)(i)	Semiannually according to the requirements in §63.7131(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	Actions taken for the event	By fax or telephone within 2 working days after starting actions inconsistent with the SSMP.
3. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your SSMP	The information in §63.10(d)(5)(ii)	By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority. See §63.10(d)(5)(ii).

Table 8 to Subpart AAAAA of Part 63—Applicability of General Provisions to Subpart AAAAA

As required in §63.7140, you must comply with the applicable General Provisions requirements according to the following table:

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.1(a)(1)–(4)	Applicability	Yes	
§63.1(a)(5)		No	
§63.1(a)(6)	Applicability	Yes	
§63.1(a)(7)–(a)(9)		No	
§63.1(a)(10)–(a)(14)	Applicability	Yes	
§63.1(b)(1)	Initial Applicability Determination	Yes	§§63.7081 and 63.7142 specify additional applicability determination requirements.
§63.1(b)(2)		No	
§63.1(b)(3)	Initial Applicability Determination	Yes	
§63.1(c)(1)	Applicability After Standard Established	Yes	
§63.1(c)(2)	Permit Requirements	No	Area sources not subject to subpart AAAAA, except all sources must make initial applicability determination.
§63.1(c)(3)		No	
§63.1(c)(4)–(5)	Extensions, Notifications	Yes	
§63.1(d)		No	
§63.1(e)	Applicability of Permit Program	Yes	
§63.2	Definitions		Additional definitions in §63.7143.
§63.3(a)–(c)	Units and Abbreviations	Yes	
§63.4(a)(1)–(a)(2)	Prohibited Activities	Yes	
§3.4(a)(3)–(a)(5)		No	
§63.4(b)–(c)	Circumvention, Severability	Yes	
§63.5(a)(1)–(2)	Construction/Reconstruction	Yes	
§63.5(b)(1)	Compliance Dates	Yes	
§63.5(b)(2)		No	

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.5(b)(3)–(4)	Construction Approval, Applicability	Yes	
§63.5(b)(5)		No	
§63.5(b)(6)	Applicability	Yes	
§63.5(c)		No	
§63.5(d)(1)–(4)	Approval of Construction/Reconstruction	Yes	
§63.5(e)	Approval of Construction/Reconstruction	Yes	
§63.5(f)(1)–(2)	Approval of Construction/Reconstruction	Yes	
§63.6(a)	Compliance for Standards and Maintenance	Yes	
§63.6(b)(1)–(5)	Compliance Dates	Yes	
§63.6(b)(6)		No	
§63.6(b)(7)	Compliance Dates	Yes	
§63.6(c)(1)–(2)	Compliance Dates	Yes	
§63.6(c)(3)–(c)(4)		No	
§63.6(c)(5)	Compliance Dates	Yes	
§63.6(d)		No	
§63.6(e)(1)	Operation & Maintenance	Yes	See §63.7100 for OM&M requirements.
§63.6(e)(2)		No	
§63.6(e)(3)	Startup, Shutdown Malfunction Plan	Yes	
§63.6(f)(1)–(3)	Compliance with Emission Standards	Yes	
§63.6(g)(1)–(g)(3)	Alternative Standard	Yes	
§63.6(h)(1)–(2)	Opacity/VE Standards	Yes	
§63.6(h)(3)		No	
§63.6(h)(4)–(h)(5)(i)	Opacity/VE Standards	Yes	This requirement only applies to opacity and VE performance checks required in Table 4 to subpart

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
			AAAAA.
§63.6(h)(5) (ii)–(iii)	Opacity/VE Standards	No	Test durations are specified in subpart AAAAA; subpart AAAAA takes precedence.
§63.6(h)(5)(iv)	Opacity/VE Standards	No	
§63.6(h)(5)(v)	Opacity/VE Standards	Yes	
§63.6(h)(6)	Opacity/VE Standards	Yes	
§63.6(h)(7)	COM Use	Yes	
§63.6(h)(8)	Compliance with Opacity and VE	Yes	
§63.6(h)(9)	Adjustment of Opacity Limit	Yes	
§63.6(i)(1)–(i)(14)	Extension of Compliance	Yes	
§63.6(i)(15)		No	
§63.6(i)(16)	Extension of Compliance	Yes	
§63.6(j)	Exemption from Compliance	Yes	
§63.7(a)(1)–(a)(3)	Performance Testing Requirements	Yes	§63.7110 specifies deadlines; §63.7112 has additional specific requirements.
§63.7(b)	Notification	Yes	
§63.7(c)	Quality Assurance/Test Plan	Yes	
§63.7(d)	Testing Facilities	Yes	
§63.7(e)(1)–(4)	Conduct of Tests	Yes	
§63.7(f)	Alternative Test Method	Yes	
§63.7(g)	Data Analysis	Yes	
§63.7(h)	Waiver of Tests	Yes	
§63.8(a)(1)	Monitoring Requirements	Yes	See §63.7113.
§63.8(a)(2)	Monitoring	Yes	
§63.8(a)(3)		No	
§63.8(a)(4)	Monitoring	No	Flares not applicable.
§63.8(b)(1)–(3)	Conduct of Monitoring	Yes	
§63.8(c)(1)–(3)	CMS Operation/Maintenance	Yes	
§63.8(c)(4)	CMS Requirements	No	See §63.7121.

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.8(c)(4)(i)–(ii)	Cycle Time for COM and CEMS	Yes	No CEMS are required under subpart AAAAA; see §63.7113 for CPMS requirements.
§63.8(c)(5)	Minimum COM procedures	Yes	COM not required.
§63.8(c)(6)	CMS Requirements	No	See §63.7113.
§63.8(c)(7)–(8)	CMS Requirements	Yes	
§63.8(d)	Quality Control	No	See §63.7113.
§63.8(e)	Performance Evaluation for CMS	No	
§63.8(f)(1)–(f)(5)	Alternative Monitoring Method	Yes	
§63.8(f)(6)	Alternative to Relative Accuracy test	No	
§63.8(g)(1)–(g)(5)	Data Reduction; Data That Cannot Be Used	No	See data reduction requirements in §§63.7120 and 63.7121.
§63.9(a)	Notification Requirements	Yes	See §63.7130.
§63.9(b)	Initial Notifications	Yes	
§63.9(c)	Request for Compliance Extension	Yes	
§63.9(d)	New Source Notification for Special Compliance Requirements	Yes	
§63.9(e)	Notification of Performance Test	Yes	
§63.9(f)	Notification of VE/Opacity Test	Yes	This requirement only applies to opacity and VE performance tests required in Table 4 to subpart AAAAA. Notification not required for VE/opacity test under Table 6 to subpart AAAAA.
§63.9(g)	Additional CMS Notifications	No	Not required for operating parameter monitoring.
§63.9(h)(1)–(h)(3)	Notification of Compliance Status	Yes	
§63.9(h)(4)		No	
§63.9(h)(5)–(h)(6)	Notification of Compliance Status	Yes	
§63.9(i)	Adjustment of Deadlines	Yes	

Citation	Summary of requirement	Am I subject to this requirement?	Explanations
§63.9(j)	Change in Previous Information	Yes	
§63.10(a)	Recordkeeping/Reporting General Requirements	Yes	See §§63.7131 through 63.7133.
§63.10(b)(1)–(b)(2)(xii)	Records	Yes	
§63.10(b)(2)(xiii)	Records for Relative Accuracy Test	No	
§63.10(b)(2)(xiv)	Records for Notification	Yes	
§63.10(b)(3)	Applicability Determinations	Yes	
§63.10(c)	Additional CMS Recordkeeping	No	See §63.7132.
§63.10(d)(1)	General Reporting Requirements	Yes	
§63.10(d)(2)	Performance Test Results	Yes	
§63.10(d)(3)	Opacity or VE Observations	Yes	For the periodic monitoring requirements in Table 6 to subpart AAAAA, report according to §63.10(d)(3) only if VE observed and subsequent visual opacity test is required.
§63.10(d)(4)	Progress Reports	Yes	
§63.10(d)(5)	Startup, Shutdown, Malfunction Reports	Yes	
§63.10(e)	Additional CMS Reports	No	See specific requirements in subpart AAAAA, see §63.7131.
§63.10(f)	Waiver for Recordkeeping/Reporting	Yes	
§63.11(a)–(b)	Control Device Requirements	No	Flares not applicable.
§63.12(a)–(c)	State Authority and Delegations	Yes	
§63.13(a)–(c)	State/Regional Addresses	Yes	
§63.14(a)–(b)	Incorporation by Reference	No	
§63.15(a)–(b)	Availability of Information	Yes	

Attachment D

Subpart CCC—National Emission Standards for Hazardous Air Pollutants for Steel Pickling—HCl Process Facilities and Hydrochloric Acid Regeneration Plants

Source: 64 FR 33218, June 22, 1999, unless otherwise noted.

§ 63.1155 Applicability.

(a) The provisions of this subpart apply to the following facilities and plants that are major sources for hazardous air pollutants (HAP) or are parts of facilities that are major sources for HAP:

(1) All new and 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; and

(2) All new and existing hydrochloric acid regeneration plants.

(3) The provisions of this subpart do not apply to facilities that pickle carbon steel without using hydrochloric acid, to facilities that pickle only specialty steel, or to acid regeneration plants that regenerate only acids other than hydrochloric acid.

(b) For the purposes of implementing this subpart, the affected sources at a facility or plant subject to this subpart are as follows: Continuous and batch pickling lines, hydrochloric acid regeneration plants, and hydrochloric acid storage vessels.

(c) Table 1 to this subpart specifies the provisions of this part 63, subpart A that apply and those that do not apply to owners and operators of steel pickling facilities and hydrochloric acid regeneration plants subject to this subpart.

§ 63.1156 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in subpart A of this part, or in this section as follows:

Batch pickling line means the collection of equipment and tanks configured for pickling metal in any form but usually in discrete shapes where the material is lowered in batches into a bath of acid solution, allowed to remain until the scale is dissolved, then removed from the solution, drained, and rinsed by spraying or immersion in one or more rinse tanks to remove residual acid.

Carbon steel means steel that contains approximately 2 percent or less carbon, 1.65 percent or less manganese, 0.6 percent or less silicon, and 0.6 percent or less copper.

Closed-vent system means a system that is not open to the atmosphere and that is composed of piping, ductwork, connections, and, if necessary, flow-inducing devices that transport emissions from a process unit or piece of equipment (e.g., pumps, pressure relief devices, sampling connections, open-ended valves or lines, connectors, and instrumentation systems) back into a closed system or into any device that is capable of reducing or collecting emissions.

Continuous pickling line means the collection of equipment and tanks configured for pickling metal strip, rod, wire, tube, or pipe that is passed through an acid solution in a continuous or nearly continuous manner and rinsed in another tank or series of tanks to remove residual acid. This definition includes continuous spray towers.

Hydrochloric acid regeneration plant means the collection of equipment and processes configured to reconstitute fresh hydrochloric acid pickling solution from spent pickle liquor using a thermal treatment process.

Hydrochloric acid regeneration plant production mode means operation under conditions that result in production of usable regenerated acid or iron oxide.

Hydrochloric acid storage vessel means a stationary vessel used for the bulk containment of virgin or regenerated hydrochloric acid.

Responsible maintenance official means a person designated by the owner or operator as having the knowledge and the authority to sign records and reports required under this rule.

Specialty steel means a category of steel that includes silicon electrical, alloy, tool, and stainless steels.

Spray tower means an enclosed vertical tower in which acid pickling solution is sprayed onto moving steel strip in multiple vertical passes.

Steel pickling means the chemical removal of iron oxide mill scale that is formed on steel surfaces during hot rolling or hot forming of semi-finished steel products through contact with an aqueous solution of acid where such contact occurs prior to shaping or coating of the finished steel product. This definition does not include removal of light rust or scale from finished steel products or activation of the metal surface prior to plating or coating.

Steel pickling facility means any facility that operates one or more batch or continuous steel pickling lines.

§ 63.1157 Emission standards for existing sources.

(a) *Pickling lines.* No owner or operator of an existing affected continuous or batch pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(1) Any gases that contain HCl in a concentration in excess of 18 parts per million by volume (ppmv); or

(2) HCl at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

(b) *Hydrochloric acid regeneration plants.* (1) No owner or operator of an existing affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain HCl in a concentration greater than 25 ppmv.

(2) In addition to the requirement of paragraph (b)(1) of this section, no owner or operator of an existing affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain chlorine (Cl_2) in a concentration in excess of either 6 ppmv or an alternative source-specific maximum concentration. The source-specific maximum concentration standard shall be established according to §63.1161(c)(2) of this subpart.

§ 63.1158 Emission standards for new or reconstructed sources.

(a) *Pickling lines* —(1) *Continuous pickling lines.* No owner or operator of a new or reconstructed affected continuous pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(i) Any gases that contain HCl in a concentration in excess of 6 ppmv; or

(ii) HCl at a mass emission rate that corresponds to a collection efficiency of less than 99 percent.

(2) *Batch pickling lines.* No owner or operator of a new or reconstructed affected batch pickling line at a steel pickling facility shall cause or allow to be discharged into the atmosphere from the affected pickling line:

(i) Any gases that contain HCl in a concentration in excess of 18 ppmv; or

(ii) HCl at a mass emission rate that corresponds to a collection efficiency of less than 97 percent.

(b) *Hydrochloric acid regeneration plants.* (1) No owner or operator of a new or reconstructed affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain HCl in a concentration greater than 12 ppmv.

(2) In addition to the requirement of paragraph (b)(1) of this section, no owner or operator of a new or reconstructed affected plant shall cause or allow to be discharged into the atmosphere from the affected plant any gases that contain Cl_2in a concentration in excess of 6 ppmv.

§ 63.1159 Operational and equipment standards for existing, new, or reconstructed sources.

(a) *Hydrochloric acid regeneration plant.* The owner or operator of an affected plant must operate the affected plant at all times while in production mode in a manner that minimizes the proportion of excess air fed to the process and maximizes the process offgas temperature consistent with producing usable regenerated acid or iron oxide.

(b) *Hydrochloric acid storage vessels.* The owner or operator 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.

§ 63.1160 Compliance dates and maintenance requirements.

(a) *Compliance dates.* (1) The owner or operator of an affected existing steel pickling facility and/or hydrochloric acid regeneration plant subject to this subpart shall achieve initial compliance with the requirements of this subpart no later than June 22, 2001.

(2) The owner or operator of a new or reconstructed steel pickling facility and/or hydrochloric acid regeneration plant subject to this subpart that commences construction or reconstruction after September 18, 1997, shall achieve compliance with the requirements of this subpart immediately upon startup of operations or by June 22, 1999, whichever is later.

(b) *Maintenance requirements.* (1) The owner or operator of an affected source shall comply with the operation and maintenance requirements prescribed under §63.6(e) of subpart A of this part.

(2) In addition to the requirements specified in paragraph (b)(1) of this section, the owner or operator 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 title V permit. All such plans must be consistent with good maintenance practices and, for a scrubber emission control device, must at a minimum:

(i) 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;

(ii) 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;

(iii) Require cleaning of the scrubber internals and mist eliminators at intervals sufficient to prevent buildup of solids or other fouling;

(iv) Require an inspection of each scrubber at intervals of no less than 3 months with:

(A) Cleaning or replacement of any plugged spray nozzles or other liquid delivery devices;

(B) Repair or replacement of missing, misaligned, or damaged baffles, trays, or other internal components;

(C) Repair or replacement of droplet eliminator elements as needed;

(D) Repair or replacement of heat exchanger elements used to control the temperature of fluids entering or leaving the scrubber; and

(E) Adjustment of damper settings for consistency with the required air flow.

(v) If the scrubber is not equipped with a viewport or access hatch allowing visual inspection, alternate means of inspection approved by the Administrator may be used.

(vi) The owner or operator 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 of this subpart.

(vii) The owner or operator shall maintain a record of each inspection, including each item identified in paragraph (b)(2)(iv) of this section, 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.

(3) The owner or operator of each hydrochloric acid regeneration plant shall develop and implement a written maintenance program. The program shall require:

(i) Performance of the manufacturer's recommended maintenance at the recommended intervals on all required systems and components;

(ii) Initiation of procedures for appropriate and timely repair, replacement, or other corrective action within 1 working day of detection; and

(iii) Maintenance of a daily record, signed by a responsible maintenance official, showing the date of each inspection for each requirement, the problems found, a description of the repair, replacement, or other action taken, and the date of repair or replacement.

§ 63.1161 Performance testing and test methods.

(a) *Demonstration of compliance.* The owner or operator shall conduct an initial performance test for each process or emission control device to determine and demonstrate compliance with the applicable emission limitation according to the requirements in §63.7 of subpart A of this part and in this section.

(1) Following approval of the site-specific test plan, the owner or operator 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 (and $Cl_2$for hydrochloric acid regeneration plants) in gases exiting the process or the emission control device (to determine compliance with the applicable emission concentration standard).

(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 or Cl_2exiting the process or the emission control device is less than or equal to the applicable emission concentration standard.

(b) *Establishment of scrubber operating parameters.* During the performance test for each emission control device, the owner or operator 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 owner or operator shall determine the operating parameter monitoring values as 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 paragraph (a)(2) of this section. An owner or operator may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, an owner or operator may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.

(c) *Establishment of hydrochloric acid regeneration plant operating parameters.* (1) During the performance test for hydrochloric acid regeneration plants, the owner or operator shall establish site-specific operating parameter values for the minimum process offgas temperature and the maximum proportion of excess air fed to the process as described in §63.1162(b)(1) of this subpart. During the emission test, each operating parameter must be monitored and recorded with sufficient frequency to establish a representative average value for that parameter, but no less frequently than once every 15 minutes for parameters that are monitored continuously. Amount of iron in the spent pickle liquor shall be determined for each run by sampling the liquor every 15 minutes and analyzing a composite of the samples. The owner or operator shall determine the compliant monitoring values as the averages of the values recorded during any of the runs for which results are used to establish the emission concentration per paragraph (a)(2) of this section. An owner or operator may conduct multiple performance tests to establish alternative compliant operating parameter values. Also, an owner or operator may reestablish compliant operating parameter values as part of any performance test that is conducted subsequent to the initial test or tests.

(2) During this performance test, the owner or operator of an existing affected plant may establish an alternative concentration standard if the owner or operator can demonstrate to the Administrator's satisfaction that the plant cannot meet a concentration limitation for $Cl_2$of 6 ppmv when operated within its design parameters. The alternative concentration standard shall be established through performance testing while the plant is operated at maximum design temperature and with the minimum proportion of excess air that allows production of iron oxide of acceptable quality while measuring the Cl_2concentration in the process exhaust gas. The measured concentration shall be the concentration standard for that plant.

(d) *Test methods.* (1) The following test methods in appendix A of 40 CFR part 60 shall be used to determine compliance under §63.1157(a), §63.1157(b), §63.1158(a), and §63.1158(b) of this subpart:

(i) Method 1, to determine the number and location of sampling points, with the exception that no traverse point shall be within one inch of the stack or duct wall;

(ii) Method 2, to determine gas velocity and volumetric flow rate;

(iii) Method 3, to determine the molecular weight of the stack gas;

(iv) Method 4, to determine the moisture content of the stack gas; and

(v) 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, and also to determine the concentration of Cl_2discharged to the atmosphere from acid regeneration plants. 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 (30 dry standard cubic feet). The concentrations of HCl and Cl_2shall be calculated for each run as follows:

C_{HCl}(ppmv) = 0.659 C_{HCl}(mg/dscm),

and C_{C12}(ppmv) = 0.339 C_{C12}(mg/dscm),

where C(ppmv) is concentration in ppmv and C(mg/dscm) is concentration in milligrams per dry standard cubic meter as calculated by the procedure given in Method 26A.

(2) The owner or operator may use equivalent alternative measurement methods approved by the Administrator.

§ 63.1162 Monitoring requirements.

(a) The owner or operator of a new, reconstructed, or existing steel pickling facility or acid regeneration plant subject to this subpart shall:

(1) Conduct performance tests to measure the HCl mass flows at the control device inlet and outlet or the concentration of HCl exiting the control device according to the procedures described in §63.1161 of this subpart. Performance tests shall be conducted either annually or according to an alternative schedule that is approved by the applicable permitting authority, but no less frequently than every 21/2years or twice per title V permit term. If any performance test shows that the HCl emission limitation is being exceeded, then the owner or operator is in violation of the emission limit.

(2) 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 §63.1160(b)(2) of this subpart.

(3) If an emission control device other than a wet scrubber is used, install, operate, and maintain systems for the measurement and recording of the appropriate operating parameters.

(4) Failure to record each of the operating parameters listed in paragraph (a)(2) of this section is a violation of the monitoring requirements of this subpart.

(5) 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.

(6) The owner or operator may develop and implement alternative monitoring requirements subject to approval by the Administrator.

(b) The owner or operator of a new, reconstructed, or existing acid regeneration plant subject to this subpart shall also install, operate, and maintain systems for the measurement and recording of the:

(1) Process offgas temperature, which shall be monitored continuously and recorded at least once every shift while the facility is operating in production mode; and

(2) Parameters from which proportion of excess air is determined. Proportion of excess air shall be determined by a combination of total air flow rate, fuel flow rate, spent pickle liquor addition rate, and amount of iron in the spent pickle liquor, or by any other combination of parameters approved by the Administrator in accordance with §63.8(f) of subpart A of this part. Proportion of excess air shall be determined and recorded at least once every shift while the plant is operating in production mode.

(3) Each monitoring device must be certified by the manufacturer to be accurate to within 5 percent and must be calibrated in accordance with the manufacturer's instructions but not less frequently than once per year.

(4) Operation of the plant with the process offgas temperature lower than the value established during performance testing or with the proportion of excess air greater than the value established during performance testing is a violation of the operational standard specified in §63.1159(a) of this subpart.

(c) The owner or operator 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.

§ 63.1163 Notification requirements.

(a) *Initial notifications.* As required by §63.9(b) of subpart A of this part, the owner or operator shall submit the following written notifications to the Administrator:

(1) The owner or operator of an area source that subsequently becomes subject to the requirements of the standard shall provide notification to the applicable permitting authority as required by §63.9(b)(1) of subpart A of this part.

(2) As required by §63.9(b)(2) of subpart A of this part, the owner or operator of an affected source that has an initial startup before June 22, 1999, shall notify the Administrator that the source is subject to the requirements of the standard. The notification shall be submitted not later than October 20, 1999 (or within 120 calendar days after the source becomes subject to this standard), and shall contain the information specified in §§63.9(b)(2)(i) through 63.9(b)(2)(v) of subpart A of this part.

(3) As required by §63.9(b)(3) of subpart A of this part, the owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date and for which an application for approval of construction or reconstruction is not required under §63.5(d) of subpart A of this part, shall notify the Administrator in writing that the source is subject to the standards no later than 120 days after initial startup. The notification shall contain the information specified in §§63.9(b)(2)(i) through 63.9(b)(2)(v) of subpart A of this part, delivered or postmarked with the notification required in §63.9(b)(5) of subpart A of this part.

(4) As required by §63.9(b)(4) of subpart A of this part, the owner or operator of a new or reconstructed major affected source that has an initial startup after June 22, 1999, and for which an application for approval of construction or reconstruction is required under §63.5(d) of subpart A of this part shall provide the information specified in §§63.9(b)(4)(i) through 63.9(b)(4)(v) of subpart A of this part.

(5) As required by §63.9(b)(5) of subpart A of this part, the owner or operator who, after June 22, 1999, intends to construct a new affected source or reconstruct an affected source subject to this standard, or reconstruct a source such that it becomes an affected source subject to this standard, shall notify the Administrator, in writing, of the intended construction or reconstruction.

(b) *Request for extension of compliance.* As required by §63.9(c) of subpart A of this part, if the owner or operator of an affected source cannot comply with this standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with §63.6(i)(5) of subpart A of this part, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in §§63.6(i)(4) through 63.6(i)(6) of subpart A of this part.

(c) *Notification that source is subject to special compliance requirements.* As required by §63.9(d) of subpart A of this part, an owner or operator of a new source that is subject to special compliance requirements as specified in §§63.6(b)(3) and 63.6(b)(4) of subpart A of this part shall notify the Administrator of his/her compliance obligations not later than the notification dates established in §63.9(b) of subpart A of this part for new sources that are not subject to the special provisions.

(d) *Notification of performance test.* As required by §63.9(e) of subpart A of this part, the owner or operator of an affected source shall notify the Administrator 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 the Administrator to review and approve the site-specific test plan required under §63.7(c) of subpart A of this part and, if requested by the Administrator, to have an observer present during the test.

(e) *Notification of compliance status.* The owner or operator of an affected source shall submit a notification of compliance status as required by §63.9(h) of subpart A of this part when the source becomes subject to this standard.

§ 63.1164 Reporting requirements.

(a) *Reporting results of performance tests.* As required by §63.10(d)(2) of subpart A of this part, the owner or operator of an affected source shall report the results of any performance test as part of the notification of compliance status required in §63.1163 of this subpart.

(b) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports under §63.6(i) of subpart A of this part shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(c) *Periodic startup, shutdown, and malfunction reports.* Section 63.6(e) of subpart A of this part requires the owner or operator of an affected source 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 times, including during any period of startup, shutdown, or malfunction. Malfunctions must be corrected as soon as practicable after their occurrence.

(1) *Plan.* As required by §63.6(e)(3) of subpart A of this part, the owner or operator shall develop 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 standards.

(2) *Reports.* As required by §63.10(d)(5)(i) of subpart A of this part, if actions taken by an owner or operator 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 owner or operator shall state such information in a semiannual report. The report, to be certified by the owner or operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th day following the end of each calendar half; and

(3) *Immediate Reports.* Any time an action taken by an owner or operator 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 owner or operator shall comply with all requirements of §63.10(d)(5)(ii) of subpart A of this part.

[64 FR 33218, June 22, 1999, as amended at 71 FR 20458, Apr. 20, 2006]

§ 63.1165 Recordkeeping requirements.

(a) *General recordkeeping requirements.* As required by §63.10(b)(2) of subpart A of this part, the owner or operator shall maintain records for 5 years from the date of each record of:

(1) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);

(2) The occurrence and duration of each malfunction of the air pollution control equipment;

(3) All maintenance performed on the air pollution control equipment;

(4) Actions taken during periods of startup, shutdown, and malfunction and the dates of such actions (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when these actions are different from the procedures specified in the startup, shutdown, and malfunction plan;

(5) All information necessary to demonstrate conformance with the startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. This information can be recorded in a checklist or similar form (see §63.10(b)(2)(v) of subpart A of this part);

(6) 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;

(7) All results of initial or subsequent performance tests;

(8) If the owner or operator has been granted a waiver from recordkeeping or reporting requirements under §63.10(f) of subpart A of this part, any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements;

(9) If the owner or operator has been granted a waiver from the initial performance test under §63.7(h) of subpart A of this part, a copy of the full request and the Administrator's approval or disapproval;

(10) All documentation supporting initial notifications and notifications of compliance status required by §63.9 of subpart A of this part; and

(11) Records of any applicability determination, including supporting analyses.

(b) *Subpart CCC records.* (1) In addition to the general records required by paragraph (a) of this section, the owner or operator shall maintain records for 5 years from the date of each record of:

(i) Scrubber makeup water flow rate and recirculation water flow rate if a wet scrubber is used;

(ii) Calibration and manufacturer certification that monitoring devices are accurate to within 5 percent; and

(iii) Each maintenance inspection and repair, replacement, or other corrective action.

(2) The owner or operator of an acid regeneration plant shall also maintain records for 5 years from the date of each record of process offgas temperature and parameters that determine proportion of excess air.

(3) The owner or operator shall keep the written operation and maintenance plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the source is no longer subject to the provisions of this subpart. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the plan on record to be made available for inspection by the Administrator for a period of 5 years after each revision to the plan.

(c) *Recent records.* General records and subpart CCC records for the most recent 2 years of operation must be maintained on site. Records for the previous 3 years may be maintained off site.

§ 63.1166 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (8) of this section.

(1) Approval of alternatives to the requirements in §§63.1155, 63.1157 through 63.1159, and 63.1160(a).

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of any alternative measurement methods for HCl and $CL_2$to those specified in §63.1161(d)(1).

(4) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(5) Approval of any alternative monitoring requirements to those specified in §§63.1162(a)(2) through (5) and 63.1162(b)(1) through (3).

(6) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

(7) Waiver of recordkeeping requirements specified in §63.1165.

(8) Approval of an alternative schedule for conducting performance tests to the requirement specified in §63.1162(a)(1).

[68 FR 37356, June 23, 2003]

§§ 63.1167-63.1174 [Reserved]

Table 1 to Subpart CCC of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart CCC

Reference	Applies to Subpart CCC	Explanation
63.1–63.5 Yes.		
63.6 (a)–(g)	Yes.	
63.6 (h)	No	Subpart CCC does not contain an opacity or visible emission standard.
63.6 (i)–(j)	Yes.	
63.7–63.9 Yes.		
63.10 (a)–(c)	Yes.	
63.10 (d) (1)–(2)	Yes.	
63.10 (d)(3)	No	Subpart CCC does not contain an opacity or visible emission standard.
63.10 (d) (4)–(5)	Yes.	
63.10 (e)–(f)	Yes.	
63.11	No	Subpart CCC does not require the use of flares.
63.12–63.15 Yes		

Attachment E

Subpart Kb—Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Source: 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

§ 60.110b Applicability and designation of affected facility.

(a) Except as provided in paragraph (b) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids (VOL) for which construction, reconstruction, or modification is commenced after July 23, 1984.

(b) This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa.

(c) [Reserved]

(d) This subpart does not apply to the following:

(1) Vessels at coke oven by-product plants.

(2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.

(3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.

(4) Vessels with a design capacity less than or equal to 1,589.874 m^3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.

(5) Vessels located at bulk gasoline plants.

(6) Storage vessels located at gasoline service stations.

(7) Vessels used to store beverage alcohol.

(8) Vessels subject to subpart GGGG of 40 CFR part 63.

(e) *Alternative means of compliance* —(1) *Option to comply with part 65.* Owners or operators may choose to comply with 40 CFR part 65, subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR part 65, subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1.

(i) A storage vessel with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa; or

(ii) A storage vessel with a design capacity greater than 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa.

(2) *Part 60, subpart A.* Owners or operators who choose to comply with 40 CFR part 65, subpart C, must also comply with §§60.1, 60.2, 60.5, 60.6, 60.7(a)(1) and (4), 60.14, 60.15, and 60.16 for those storage vessels. All sections and paragraphs of subpart A of this part that are not mentioned in this paragraph (e)(2) do not apply to owners or operators of storage vessels complying with 40 CFR part 65, subpart C, except that provisions required to be met prior to implementing 40 CFR part 65 still apply. Owners and operators who choose to comply with 40 CFR part 65, subpart C, must comply with 40 CFR part 65, subpart A.

(3) *Internal floating roof report.* If an owner or operator installs an internal floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.43. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

(4) *External floating roof report.* If an owner or operator installs an external floating roof and, at initial startup, chooses to comply with 40 CFR part 65, subpart C, a report shall be furnished to the Administrator stating that the control equipment meets the specifications of 40 CFR 65.44. This report shall be an attachment to the notification required by 40 CFR 65.5(b).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 78275, Dec. 14, 2000; 68 FR 59332, Oct. 15, 2003]

§ 60.111b Definitions.

Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.

Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.

Fill means the introduction of VOL into a storage vessel but not necessarily to complete capacity.

Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.

Maximum true vapor pressure means the equilibrium partial pressure exerted by the volatile organic compounds (as defined in 40 CFR 51.100) in the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:

(1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference—see §60.17); or

(2) As obtained from standard reference texts; or

(3) As determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17);

(4) Any other method approved by the Administrator.

Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.

Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.

Process tank means a tank that is used within a process (including a solvent or raw material recovery process) to collect material discharged from a feedstock storage vessel or equipment within the process before the material is transferred to other equipment within the process, to a product or by-product storage vessel, or to a vessel used to store recovered solvent or raw material. In many process tanks, unit operations such as reactions and blending are conducted. Other process tanks, such as surge control vessels and bottoms receivers, however, may not involve unit operations.

Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323–82 or 94 (incorporated by reference—see §60.17).

Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:

(1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors;

(2) Subsurface caverns or porous rock reservoirs; or

(3) Process tanks.

Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds (as defined in 40 CFR 51.100) into the atmosphere.

Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989; 65 FR 61756, Oct. 17, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.112b Standard for volatile organic compounds (VOC).

(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:

(1) A fixed roof in combination with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:

(i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

(A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in §60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.

(B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in §60.113b(b)(4).

(ii) Except for automatic bleeder vents and rim space vents, each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's

recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.

(3) A closed vent system and control device meeting the following specifications:

(i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, §60.485(b).

(ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (§60.18) of the General Provisions.

(4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in §60.114b of this subpart.

(b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m^3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:

(1) A closed vent system and control device as specified in §60.112b(a)(3).

(2) A system equivalent to that described in paragraph (b)(1) as provided in §60.114b of this subpart.

(c) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia.* This paragraph applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia (“site”).

(1) For any storage vessel that otherwise would be subject to the control technology requirements of paragraphs (a) or (b) of this section, the site shall have the option of either complying directly with the requirements of this subpart, or reducing the site-wide total criteria pollutant emissions cap (total emissions cap) in accordance with the procedures set forth in a permit issued pursuant to 40 CFR 52.2454. If the site chooses the option of reducing the total emissions cap in accordance with the procedures set forth in such permit, the requirements of such permit shall apply in lieu of the otherwise applicable requirements of this subpart for such storage vessel.

(2) For any storage vessel at the site not subject to the requirements of 40 CFR 60.112b (a) or (b), the requirements of 40 CFR 60.116b (b) and (c) and the General Provisions (subpart A of this part) shall not apply.

[52 FR 11429, Apr. 8, 1987, as amended at 62 FR 52641, Oct. 8, 1997]

§ 60.113b Testing and procedures.

The owner or operator of each storage vessel as specified in §60.112b(a) shall meet the requirements of paragraph (a), (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of §60.112b.

(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:

(1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.

(2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in §60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet §60.112b(a)(2) (external floating roof), the owner or operator shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

(i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4) (i) and (ii) of this section:

(i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.

(A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.

(B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(ii) The secondary seal is to meet the following requirements:

(A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

(B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm^2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.

(C) There are to be no holes, tears, or other openings in the seal or seal fabric.

(iii) If a failure that is detected during inspections required in paragraph (b)(1) of §60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) The owner or operator of each source that is equipped with a closed vent system and control device as required in §60.112b (a)(3) or (b)(2) (other than a flare) is exempt from §60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 °C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

(d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in §60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, §60.18 (e) and (f).

[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

§ 60.114b Alternative means of emission limitation.

(a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in §60.112b,

the Administrator will publish in theFederal Registera notice permitting the use of the alternative means for purposes of compliance with that requirement.

(b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.

(c) Any person seeking permission under this section shall submit to the Administrator a written application including:

(1) An actual emissions test that uses a full-sized or scale-model storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.

(2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.

(d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in §60.112b.

§ 60.115b Reporting and recordkeeping requirements.

The owner or operator of each storage vessel as specified in §60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of §60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

(a) After installing control equipment in accordance with §60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(1) and §60.113b(a)(1). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Keep a record of each inspection performed as required by §60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in §60.113b(a)(2) are detected during the annual visual inspection required by §60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in §60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of §61.112b(a)(1) or §60.113b(a)(3) and list each repair made.

(b) After installing control equipment in accordance with §61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of §60.112b(a)(2) and §60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by §60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by §60.113b(b)(1), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by §60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in §60.113b (b)(2) and (b)(3).

(4) After each seal gap measurement that detects gaps exceeding the limitations specified by §60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.

(c) After installing control equipment in accordance with §60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.

(1) A copy of the operating plan.

(2) A record of the measured values of the parameters monitored in accordance with §60.113b(c)(2).

(d) After installing a closed vent system and flare to comply with §60.112b, the owner or operator shall meet the following requirements.

(1) A report containing the measurements required by §60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by §60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.

(2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.

(3) Semiannual reports of all periods recorded under §60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

§ 60.116b Monitoring of operations.

(a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.

(b) The owner or operator of each storage vessel as specified in §60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.

(c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.

(d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.

(e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

(f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.

(1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.

(2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

(i) ASTM D2879–83, 96, or 97 (incorporated by reference—see §60.17); or

(ii) ASTM D323–82 or 94 (incorporated by reference—see §60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of §60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.

[52 FR 11429, Apr. 8, 1987, as amended at 65 FR 61756, Oct. 17, 2000; 65 FR 78276, Dec. 14, 2000; 68 FR 59333, Oct. 15, 2003]

§ 60.117b Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: §§60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii).

[52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Permit Modification

Source Background and Description

Source Name:	ArcelorMittal USA, Inc.
Source Location:	3210 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3312
Operation Permit No.:	089-6577-00316
Operation Permit Issuance Date:	September 12, 2006
Significant Permit Modification No.:	089-18491-00316
Permit Reviewer:	Teresa Freeman

The Office of Air Quality (OAQ) has reviewed a modification application from ArcelorMittal USA, Inc. relating to the operation of a stationary iron and steel mill.

History

ArcelorMittal USA, Inc. was issued Part 70 Permit No. 089-6577-00316 on September 12, 2006. On October 31, 2006, ArcelorMittal USA, Inc. filed a petition for administrative review of their Part 70 Operating Permit (Cause No. 06-A-J-3808). This Significant Source Modification No. 18491 resolves the petition. As a result of this permit modification, changes to the permit have been made as detailed below in the proposed changes section of this technical support document (TSD).

Existing Approvals

The source was issued Part 70 Permit No. 089-6577-00316 on September 12, 2006. The source has since received the following approvals:

(a) First Administrative Amendment No.: 089-23628-00316 on November 1, 2006.

(b) First Significant Source Modification No.: 089-23651-00316 on January 3, 2007.

(c) First Significant Permit Modification No.: 089-23470-00316 on January 22, 2007.

(d) Second Significant Source Modification No.: 089-25598-00316 on April 21, 2008.

(e) Second Significant Permit Modification No.: 089-25725-00316 on July 9, 2008.

(f) Second Administrative Amendment No.: 089-26796-00316 on August 20, 2008.

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO_2	Better than national standards.

CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O_3	Nonattainment Subpart 2 Moderate effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO_2	Cannot be classified or better than national standards.
Pb Not	designated.
[1]Nonattainment Severe 17 effective November 15, 1990, for the Chicago-Gary-Lake County area for the 1-hour ozone standard which was revoked effective June 15, 2005. Basic nonattainment designation effective federally April 5, 2005, for $PM_{2.5}$.	

(a) Ozo ne Standards

(1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1, revoking the one-hour ozone standard in Indiana.

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph counties as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties as attainment for the 8-hour ozone standard.

(4) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.

(i) 1-hour ozone standard

On December 22, 2006, the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air Quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

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 NO_x threshold for nonattainment new source review. Therefore, VOC emissions alone are considered when evaluating

the rule applicability relating to the 1-hour ozone standards. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability for the source section.

(ii) 8-hour ozone standard

VOC and NO_x emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

(b) $PM_{2.5}$

U.S. EPA, in the Federal Register Notice 70 FR 943, dated January 5, 2005, has designated Lake County as nonattainment for $PM_{2.5}$. On March 7, 2005, the Indiana Attorney General's Office, on behalf of IDEM, filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's New Source Review Rule for $PM_{2.5}$ promulgated on May 8, 2008, and effective on July 15, 2008. Therefore, direct $PM_{2.5}$ and SO2 emissions were reviewed pursuant to the requirements of Nonattainment New Source Review, 326 IAC 2-1.1-5. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants

Lake County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(d) Since this source is classified as an integrated steel mill, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(e) Fugitive Emissions

Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Nonattainment NSR applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (tons/year)
PM	Greater than 100
PM10	Greater than 100
PM2.5	Greater than 100
SO_2	Greater than 100
VOC	Greater than 100
CO	Greater than 100
NO_x	Greater than 100

(a) This existing source is a major Emission Offset stationary source because the potential to emit VOC and NOx is each greater 100 tons/yr. This existing source is a major stationary source, under nonattainment new source review rules (326 IAC 2-1.1-5) since direct PM2.5 and/or SO_2 is emitted at a rate of 100 tons per year or more.

(b) This existing source is a major PSD stationary source because the potential to emit PM, PM10, SO_2, and CO is greater than 100 tons per year or more, and it is in one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(c) These emissions are based upon the Technical Support Document (TSD) for T089-6577-00316, issued on September 12, 2006. It is assumed that PM2.5 emissions are equal to PM10 emissions.

The table below summarizes the potential to emit HAPs for the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

HAPs	Potential To Emit (tons/year)
Single HAP	Greater than 10
Total HAPs	Greater than 25

This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for any combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modifications

ArcelorMittal USA, Inc. (formerly Mittal Steel USA Inc. - Indiana Harbor East) is an existing integrated iron and steel mill and is permitted to operate under T089-6577-00316, issued on September 12, 2006. On October 31,2006, ArcelorMittal USA, Inc. filed a petition for administrative review of their Part 70 Operating Permit (Cause No. 06-A-J-3808).

This Significant Permit Modification No. 089-18491-000316 resolves the petition and Part 70 Operating Permit No. T089-6577-00316 is modified in a manner so as to affect the terms addressed in the petition.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Permit Level Determination – Part 70

There are no increases in emissions related to this. Therefore, this modification is being performed through a Part 70 Significant Permit Modification (SPM) pursuant to 326 IAC 2-7-12(d) because this modification results in significant changes in existing monitoring, Part 70 permit terms or conditions.

Federal Rule Applicability

(a) There are no changes to the federal rule applicability as a result of this modification.

(b) The No. 3 Galvanizing Line Radiant Tube Reducing Furnace (13 MMBtu/hr), No. 4 Aluminizing Line Radiant Tube Reducing Furnace (19 MMBtu/hr), No. 5 Galvanizing Line Radiant Tube Reducing Furnace (113 MMBtu/hr), No. 3 Continuous Annealing and Aging Furnaces (85 MMBtu/hr), No. 5 Batch Annealing Furnaces (136 MMBtu/hr), No.2 AC

Station Boilers 211-213 and No. 5 Boilerhouse 501-503 would have been subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, on June 8, 2007, the United States Court of appeals for the District of Columbia Circuit (in NRDC v. EPA, no. 04-1386) vacated in its entirety the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. Additionally, since the state rule at 326 IAC 20-95 incorporated the requirements of the NESHAP 40 CFR 63, Subpart DDDDD by reference, the requirements of 326 IAC 20-95 are no longer effective. Therefore, the requirements of 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit.

State Rule Applicability

There are no changes to the state rule applicability as a result of this modification.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Changes to the compliance determination and monitoring requirements are detailed below in the Proposed Changes section of this TSD.

Proposed Changes

The following changes have been made to the Part 70 Permit No.: T089-6577-00316, issued on September 12, 2006. New language is in **bold** and language shown in ~~strikeout~~ has been deleted.

1. Emission Unit descriptions have been updated for clarification. Condition A.3 and subsequent corresponding D Section Facility Description Boxes have been changed.

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

ArcelorMittal USA, Inc. (Plant ID 089-00316), consists of the following permitted emission units and pollution control devices:

***

(f) No.4 Basic Oxygen Furnace (BOF) comprised of the following facilities, process equipment, and operational practices:

***

(4) Two (2) BOFs, identified as No. 50 and No. 60 and operations including charging, blowing, tapping, flux and alloy additions, and slag skimming with a total estimated maximum capacity of 5,676,366 tons of hot metal and scrap per year with uncaptured emissions exhausting through a roof monitor (stack 29), and captured emissions controlled by a four (4) off-gas scrubber system, exhausting through stack 38. The **scrubber system** ~~is~~ equipment was **modernized** ~~constructed~~ in **2007**~~1966~~. Charging, tapping, and miscellaneous furnace emissions are controlled by a secondary ventilation baghouse having a flow rate of 600,000 acfm, exhausting through stack 37. This equipment was constructed in 1977 and modified in 1996.

***

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

(1) Limestone unloading, storage and screening area.

(2) Two (2) Limestone preheaters, two (2) rotary kilns with an estimated maximum heat input rate of 284 MMBtu/hr fueled by natural gas or residual fuel oil, with exhaust from kilns routed back to preheaters and then to a set of multiclones. The remaining emissions from the kilns and preheaters are controlled by two (2) baghouses ("213-1" & "213-2") exhausting through stacks 45 and 49.

(3) Dust fines are sent to two dust bins, with emissions controlled by baghouses ("217-1" & "217-2") and exhausting through stack 46.

(4) Ten (10) storage silos receive an estimated maximum of 569,400 tons per year of finished lime, with fines controlled by lime handling baghouses ("413") and exhausting through stack 47.

(5) Fugitive control project including loadout spout on rejection bin controlled by existing kiln baghouse, preheater area enclosure around two (2) kiln feed hood/ ram loadout dribbles, preheater area loading spouts for truck loading with displaced air controlled by existing kiln baghouse and ten (10) loading spouts at the truck loadout area with exhaust controlled by loadout baghouse ("408") and exhausting through stack 48. Lime product handling emissions from transfer points between both sides of lime cooler rotary valves and lime product/reject handling belts inside the firing building are controlled by a baghouse ("420") exhausting through stack 50. This equipment was upgraded in 1997.

(1) ~~Limestone unloading, storage and screening area.~~

~~(2) Two (2) Limestone preheaters, two (2) rotary kilns with an estimated maximum heat input rate of 207 MMBtu/hr fueled by natural gas or residual fuel oil, with exhaust from kilns routed back to preheaters and then to a set of multicyclones. The emissions from the multicyclones are controlled by two (2) baghouses exhausting through stacks 45 and 49.~~

~~(3) Dust fines are sent to a dust bin, with emissions controlled by a baghouse and exhausting through stack 46.~~

~~(4) Ten (10) storage silos receive an estimated maximum of 569,400 tons per year of finished lime, with fines controlled by lime handling baghouses and exhausting through stack 47.~~

~~(5) Fugitive control project including loadout spout on rejection bin controlled by existing kiln baghouse, preheater area enclosure around two (2) kiln feed hood/ ram loadout dribbles, preheater area loading spouts for truck loading with displaced air controlled by existing kiln baghouse and ten (10) loading spouts with emissions controlled by baghouse and truck loadout area with exhaust controlled by loadout baghouse and exhausting through stack 48. This equipment was upgraded in 1997.~~

(o) Shops comprised of the following facilities, process equipment, and operational practices:

***

~~(12) No. 2 Slab Yard including one grinder, constructed in 2006, with a maximum capacity of 250,000 tons per year, using a baghouse as PM/PM-10 control, and exhausting to stack 95.~~

2. Condition B.10 has been revised and all Preventive Maintenance Plan conditions found in each D section have been removed from the permit.

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

(a) ~~If required by specific condition(s) in Section D of this permit, t~~**T**he 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~~ **for the source as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include**:

***

~~D.1.4 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 this facility and any control devices.~~

~~D.2.13 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 this facility and any control devices.~~

~~D.3.5 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 this facility and any control devices.~~

~~D.4.3 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 this facility and any control devices.~~

~~D.5.8 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 this facility and any control devices.~~

~~D.6.7 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 this facility and any control devices~~.

~~D.7.5 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 this facility and any control devices.~~

~~D.8.10 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 this facility and any control devices.~~

~~D.9.6 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 this facility and any control devices.~~

~~D.10.4 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 this facility and any control devices.~~

~~D.11.5 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 this facility and any control devices.~~

~~D.12.11 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 this facility and any control devices.~~

~~D.13.9 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 this facility and any control devices.~~

~~D.14.5 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 this facility and any control devices.~~

3. All references to former 326 IAC 6-1 rules have been removed from the permit. In addition Condition D.12.3 (now D.12.1) has been changed to reflect that only natural gas may be used.

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

(a) Pursuant to 326 IAC 326 IAC 6.8-8-1 ~~(formerly 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 6.8-8-5 ~~(formerly 326 IAC 6-1-10.1 (p))~~ through 326 IAC 6.8-8-7 ~~(formerly 326 IAC 6-1-10.1 (r))~~ or applicable procedures in the CCP.

(b) Pursuant to 326 IAC 6.8-8-8 ~~(formerly 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 department. The Permittee shall submit the updated CCP, if required to IDEM, OAQ within thirty (30) days of the update.

(c) Pursuant to 326 IAC 6.8-8 ~~(formerly 326 IAC 6-1-10.1)~~, failure to submit a CCP, maintain all information required by the CCP at the source, or submit update to a CCP is a violation of 326 IAC 6.8-8 ~~(formerly 326 IAC 6-1-10.1)~~.

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

Pursuant to 326 IAC 6.8-2-17 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~, the allowable PM10 emissions from No.5 and No. 6 Blast Furnace processes shall not exceed the following:

***

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

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

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

Pursuant to 326 IAC 6.8-2-17 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~, Total Suspended Particulate (TSP) emissions at the Sinter Plant shall not exceed the following:

***

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

Pursuant to 326 IAC 6.8-10-3 ~~(formerly 326 IAC 6-1-11.1(d))~~, the PM10 emissions from the upper screening station baghouse (11) when in operation shall not exceed 0.022 grains per dry standard cubic foot of exhaust air.

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

Pursuant to 326 IAC 6.8-2 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~, PM10 emissions from the PCI system shall not exceed the following:

***

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

Pursuant 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~, the Coal unloading system exhausting to stack (192) shall not discharge to the atmosphere any gases which contain particulate matter in excess of 0.03 grains per dry standard cubic foot of exhaust air.

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

Pursuant to 326 IAC 6.8-2-17 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~, Total Suspended Particulates (TSP) emissions from the BOF Shop operations shall not exceed the following:

***

D.5.2 Opacity [326 IAC 6.8-3]

Pursuant to 326 IAC 6.8-3 ~~(formerly 326 IAC 6-1-10.1(e))~~, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The opacity limits for the BOF operations shall be limited as follows:

***

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

Pursuant to 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~ (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No.2 BOF Furnace Roof Monitor (153), Continuous casting operations (160, 161, 162), No. 2 BOF Continuous Caster Roof Monitor (158), ladle reheating (157) and No. 2 BOF Shop Roof Monitor (155) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

***

D.5.~~9~~**8** Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform TSP and opacity testing on the No.2 BOF No.10 and No. 20 furnaces (stacks 147 and 148) utilizing a testing method approved by the Commissioner to show compliance with conditions D.5.1 and 5.2, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-3-1 ~~(formerly 326 IAC 6-1-10.1(f)(2))~~ and is approved by the Commissioner. This test shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

D.6.~~3~~**1** Lake County PM10 emission requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~ Total Suspended Particulate (TSP) emissions from the No. 4 BOF operations shall not exceed the following:

***

D.6.~~4~~**2** Opacity [326 IAC 6.8-3]

Pursuant to 326 IAC 6.8-3 ~~(formerly 326 IAC 6-1-10.1(e))~~, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The visible emissions from the BOF operations shall be limited as follows:

***

D.6.~~5~~**3** Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~ (Nonattainment Area Particulate Limitations), the particulate matter emissions from the No.4 BOF Furnace Roof Monitor (29), RHOB vacuum degassers (32), ladle reheating (36), mold fume baghouse (stack 214), continuous caster (24 and 25) and Furnace Additive Hopper baghouse (35) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.7.~~3~~**1** Lake County PM10 emission requirements [326 IAC 6.8-2]

Pursuant to 326 IAC 6.8-2-17 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~, PM10 emissions from the No. 1 Lime Plant operations shall not exceed the following:

***

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

Pursuant to 326 IAC 6.8-2-17 ~~(formerly 326 IAC 6-1-10.1(d)(19))~~, PM10 emissions from the electric arc furnace operations shall not exceed the following:

***

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

Pursuant to 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~ (Nonattainment Area Particulate Limitations), the particulate matter emissions from the regenerative horizontal ladle preheaters (140), continuous casting and cooling operations (138 and 145), EAF Shop Roof Monitor (142) and DRI Bin Vent Filters (210-212) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.8.3 Opacity [326 IAC 6.8-3]

Pursuant to 326 IAC 6.8-3 ~~(formerly 326 IAC 6-1-10.1(e))~~, the following opacity limits shall be complied with and shall take precedence over those in 326 IAC 5-1-2 with which they conflict. The opacity from the electric arc furnace operations shall be limited as follows:

***

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

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

D.10.1 Particulate Matter [326 IAC 6.8-2-~~6~~**17**]

Pursuant to 326 IAC 6.8-~~6-10~~**17(c)**~~(formerly 326 IAC 6-1-10.1(h)(13))~~, the 12" Bar Mill billet reheat furnace (89) shall fire natural gas only ~~and shall not exceed PM10 emissions of 0.003 lbs/MMBtu and 1.090 lbs/hour~~.

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

Pursuant to 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~ (Nonattainment Area Particulate Limitations), the particulate matter emissions from the Billet Inspection Line Shotblaster (90), Billet Grinding (87) and the 23 Stand Rolling Mill (88) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.11.~~4~~**1** Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~ (Nonattainment Area Particulate Limitations), the particulate matter emissions from each No.4 Pickling Line (178), No. 5 Pickling Line (176), 56 in Tandem Mill (177), 80 in. Tandem Mill (175), Temper Mill No. 28 (180) and Temper Mill No. 29 (181) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

D.12.~~3~~**1** Particulate Matter [326 IAC 6.8-~~6~~-**2-17**]

Pursuant to326 IAC 6.8-~~6-10~~ **2-17(c)** ~~(formerly 326 IAC 6-1-10.1(h)(13))~~, the following combustion sources shall fire natural gas only ~~and comply with the following~~:

(a) No.3 Galvanizing Line (81) ~~shall not exceed PM10 emissions of 0.003 lbs/MMBtu and 0.51 lbs/hour~~

(b) No. 5 Galvanizing Line (182) ~~shall not exceed PM10 emissions of 0.003 lbs/MMBtu and 0.44 lbs/hour~~

(c) No. 1 Normalizing Line (184) ~~shall not exceed PM10 emissions of 0.003 lbs/MMBtu and 0.13 lbs/hour~~

(d) No. 3 Continuous Anneal Line (173) ~~shall not exceed PM10 emissions of 0.003 lbs/MMBtu and 0.25 lbs/hour~~

(e) No. 5 and No. 6 Batch Anneals (112 and 113) ~~shall not exceed PM10 emissions of 0.003 lbs/MMBtu and 0.987 lbs/hour~~

D.12.~~4~~**2** Nonattainment Area Particulate Limitations [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 ~~(formerly 326 IAC 6-1-2)~~ (Nonattainment Area Particulate Limitations), the particulate matter emissions from the reducing furnace (81A), galvanneal furnace (182A), No.4 Aluminizing line (84), flame heating furnace (183) and annealing furnace (174) shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

4. Parametric monitoring conditions have been removed because 40 CFR 63, Subpart FFFFF requires specific parametric monitoring requirements to meet the requirements of the Permittee demonstrating continuous compliance.

~~D.1.6 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~The Permittee shall record the pressure drop across the scrubber and the flow rate of the scrubber used in conjunction with the No. 5 Blast Furnace Casthouse Collection System North Scrubber (1) and South Scrubber (1), and No. 6 Blast Furnace Casthouse Collection System Scrubber (2) at~~

~~least once per day when the applicable Blast Furnace Casthouse is in operation and is venting to the atmosphere. The scrubbers shall be operated as follows:~~

~~(a) When for any one reading, the pressure drop across the No. 5 Blast Furnace Casthouse North scrubber (1) is outside the normal range of 6.5-9.0 kPa or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. When for any one reading, the flow rate of the scrubber is below the minimum of 22 liters per second or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(b) When for any one reading, the pressure drop across the No. 5 Blast Furnace Casthouse South scrubber (1) is outside the normal range of 6.5-9.0 kPa or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. When for any one reading, the flow rate of the scrubber is below the minimum of 22 liters per second or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(c) When for any one reading, the pressure drop across the No. 6 Blast Furnace Casthouse scrubber (2) is outside the normal range of 6.0-9.0kPa or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. When for any one reading, the flow rate of the scrubber is below the minimum of 20 liters per second or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.2.17 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~(a) Visible emission notations of the No. 7 blast furnace casthouse west baghouse (166) and No. 7 blast furnace casthouse east baghouse (167) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

~~D.2.18 Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the No. 7 blast furnace casthouse west baghouse (166), at least once per day when the above processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.5-8.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(b) The Permittee shall record the pressure drop across the baghouse used in conjunction with the No. 7 blast furnace casthouse east baghouse (167), at least once per day when the above processes are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.5-2.5 kPa or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.3.9 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

(a) ~~Visible emission notations of the Sinter Plant windbox main baghouse stack discharge end baghouse stack shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

~~D.3.10 Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~(a) The Permittee shall record the pressure drop across the windbox main baghouse (7) used in conjunction with the sinter plant operations, at least once per day when the windbox is in~~

~~operation when venting to the atmosphere. When for any one reading, the pressure drop across the windbox main baghouse is outside the normal range of 2.0 and 15.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(b) The Permittee shall record the pressure drop across discharge end baghouse (8) used in conjunction with the sinter plant operations, at least once per day when the crusher, and cooler are in operation when venting to the atmosphere. When for any one reading, the pressure drop across the discharge end baghouse is outside the normal range of 2.0 and 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- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.5.12 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

(a) ~~Visible emission notations of the No. 2 BOF shop charging aisle reladling and desulfurization (Hot Metal Station) baghouse (152), No. 2 BOF shop No. 10 BOF and No. 20 BOF off-gas scrubber stacks (147) and (148), and No. 2 BOF shop secondary ventilation system scrubber (149) exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

~~D.5.13 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~(a) The Permittee shall record the pressure drop and flow rate of the scrubber used in conjunction with the No.2 BOF shop, 10 BOF (147), at least once per day when the 10 BOF is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 10 and 15 kPA or a range established during the latest stack test and the flow rate of the scrubber is below the minimum of 80 liter per second, or a minimum rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take~~

~~response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(b) The Permittee shall record the pressure drop and flow rate of the scrubber used in conjunction with the No.2 BOF shop, 20 BOF (148), at least once per day when the 20 BOF is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 10 and 15 kPA or a range established during the latest stack test and the flow rate of the scrubber is below the minimum of 80 liter per second, or a minimum rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(c) The Permittee shall record the pressure drop and flow rate of the scrubber used in conjunction with the No.2 BOF shop secondary ventilation system (149), at least once per day. When for any one reading, the pressure drop across the scrubber is outside the normal range of 25 and 45 inches of water or a range established during the latest stack test and the flow rate of the scrubber is below the minimum of 1250 gallons per minute, or a minimum rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.5.15 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~The Permittee shall record the pressure drop across the baghouse used in conjunction with the No. 2 BOF shop charging aisle reladling and desulfurization (Hot Metal Station) (152) at least once per day when the Hot metal station in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0-10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.6.10 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

(a) ~~Visible emission notations of the No. 4 BOF shop off-gas scrubber (38), No. 4 BOF shop secondary ventilation system baghouse (37), No. 4 BOF shop reladling and desulfurization (Hot Metal Station) baghouse north (26) and No. 4 BOF reladling and desulfurization (Hot Metal Station) baghouse south (27) shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

~~D.6.11 Scrubber Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~The Permittee shall record the pressure drop and flow rate of the scrubber used in conjunction with the No. 4 BOF shop off-gas scrubber (38), at least once per day when the 4 BOF shop is in operation. When for any one reading, the pressure drop across the scrubber is outside the normal range of 25 and 40 inches of water or a range established during the latest stack test and the flow rate of the scrubber is below the minimum of 600 gallons per minute, or a minimum rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.6.13 Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the No. 4 BOF hot metal transfer and desulfurization baghouse north (26) at least once per day when the Hot metal station is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.5-10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(b) The Permittee shall record the pressure drop across the baghouse used in conjunction with the No. 4 BOF hot metal transfer and desulfurization baghouse south (27) at least once per day when the Hot metal station is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.0-12.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C-Response to Excursions or Exceedances. 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-Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

~~(c) The Permittee shall record the pressure drop across the baghouse used in conjunction with No. 4 BOF shop secondary ventilation system baghouse (37) at least once per day when the Hot metal station is in operation when venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 4.5-10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or~~

~~Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.~~

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

~~D.7.7 Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~(a) Visible emission notations of the No.1 and No. 2 Kiln baghouses stacks (45) and (49) exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

5. The testing frequency has been changed in some instances to be more consistent with the federal MACT requirements.

D.2.~~14~~**13** Testing Requirements [326 IAC 3-6] [326 IAC 2-7-6(1), (6)]

(a) Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform PM10 testing on the No. 7 blast furnace (West baghouse) (166) utilizing a testing method approved by the Commissioner to show compliance with conditions D.2.1, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 and is approved by the Commissioner. This test shall be repeated at least once every ~~two and one half (2.5)~~ **five (5)** years from the date of this valid compliance demonstration.

~~(b) Within thirty (30) months of issuance of this permit, or from the date of the last valid compliance test, whichever is earlier or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform TSP testing on the No. 7 blast furnace (East baghouse) (167) utilizing a testing method approved by the Commissioner to show compliance with condition D.2.1, in accordance with Section C - Performance Testing. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 (formerly 326 IAC 6-1-10.1(f)(2)) and is approved by the Commissioner. This test shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.~~

(~~c~~**b**) In order to demonstrate compliance with Conditions D.2.6(a) and D.2.6(b), within thirty (30) months from the date of the last valid compliance test, the Permittee shall perform CO testing on Stacks 166 and 167 for Casthouse Baghouses for No. 7 Blast Furnace utilizing a

testing method approved by the Commissioner, in accordance with Section C - Performance Testing. These tests shall be repeated at least once every two and one half (2.5) years from the date of this valid compliance demonstration.

D.3.~~6~~**5** Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

Within thirty (30) months of issuance of this permit, or the date of the last valid compliance test or an alternative date as determined by OAQ, Compliance Data Section, the Permittee shall perform ~~TSP and~~ SO2 testing on the sinter plant windbox exhaust (S2A) using methods as approved by the Commissioner, in order to demonstrate compliance with conditions D.3.1 and D.3.3. Testing shall be performed using a test method that is listed in 326 IAC 6.8-4-1 ~~(formerly 326 IAC 6-1-10.1(f)(2))~~ and is approved by the Commissioner. These tests shall be repeated at least once every ~~two and a one half (2.5)~~ **five (5)** years from the date of this valid compliance demonstration. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance

6. MACT rules have been removed from the D Section and placed in a Section G, with the rule then Attached to the Part 70 Permit.

~~D.6.1 General Provisions Relating to HAPs [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]~~

~~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. 4 Basic Oxygen Furnace (BOF), except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF.~~

~~D.6.2 National Emissions Standards for Hazardous Air pollutants from Integrated Iron and Steel Manufacturing - Emission Limitations for Basic Oxygen Furnace (BOF) [40 CFR 63, Subpart FFFFF]~~

~~(a) The provisions of affected source is subject to the 40 CFR 63, Subpart FFFFF National Emission Standards for Hazardous Air Pollutants: Integrated Iron and Steel Manufacturing (40 CFR 63, Subpart FFFFF) as of May 20, 2003. apply to the affected sources. A copy of this rule is available on the US EPA Air Toxics Website at http://www.epa.gov/ttn/atw/eparules.html. Pursuant to 40 CFR 63.7783(a), the Permittee must comply with these requirements on and after May 22, 2006.~~

~~(b) The following emission units comprise the affected source which is subject to 40 CFR 63, Subpart FFFFF:~~

~~No. 4 Basic Oxygen Furnace (BOF)~~

~~(c) The definitions of 40 CFR 63. Subpart FFFFF at 40 CFR 63.7852 are applicable to the affected source.~~

~~(d) 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.~~

~~D.6.17 Requirement to Submit a Significant Permit Modification 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 for 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 for affected source shall be submitted no later than 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~~
~~MC 61-53 IGCN 1003~~
~~Indianapolis, Indiana 46204-2251~~

~~D.7.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]~~

~~The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source except when otherwise specified in Table 8 to 40 CFR 63 Subpart AAAAA.~~

~~D.7.2 National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants [40 CFR 63, Subpart AAAAA]~~

~~(a) The affected source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants, (40 CFR 63, Subpart AAAAA), as of January 5, 2004. A copy of this rule is available on the US EPA Air Toxics Website at http://www.epa.gov/ttn/atw/eparules.html. Pursuant to 40 CFR 63.7083(b), the Permittee must comply with these requirements on and after January 5, 2007.~~

~~(b) The following emissions units comprise the affected source that is subject to 40 CFR 63, Subpart AAAAA:~~

~~The No.1 and No. 2 Kiln baghouses (45), (49), and their associated cooler(s), and processed stone handling (PSH) operation system(s)~~

~~(c) The definitions of 40 CFR 63. Subpart AAAAA at 40 CFR 63.7143 is applicable to the affected source~~

~~(d) 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.~~

~~D.7.12 Requirement to Submit a Significant Permit Modification 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 regarding which compliance option or options will be chosen 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 63, Subpart AAAAA, 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 twenty seven months after the effective date of January 5, 2007.~~

(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~~
~~MC 61-53 IGCN 1003~~
~~Indianapolis, Indiana 46204-2251~~

~~D.11.1 General Provisions Relating to 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 20-1-1, 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 for Steel Pickling - HCl Process Facilities and Hydrochloric Acid Regeneration Plants [40 CFR 63, Subpart CCC] [40 CFR 63.1157]~~

~~Pursuant to 40 CFR 63, Subpart CCC, the Pickling Line (S6A) shall comply with the following requirements:~~

(a) ~~The Permittee shall not cause or allow to be discharged into the atmosphere from the affected pickling line:~~

~~(1) Any gases that contain HCl in a concentration in excess of 18 ppmv; or~~

~~(2) HCl at a mass emission rate that corresponds to a collection efficiency of less than~~ 97 ~~percent.~~

~~D.11.3 NESHAP Maintenance Requirements [40 CFR Part 63.1160, Subpart CCC]~~

~~The Permittee shall comply with the operation and maintenance requirements of 40 CFR Part 63.6(e) (Subpart A, General Provisions) at the No. 4 Pickling Line and No. 5 Pickling Line. 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 airflow.~~

~~(e) If the scrubber is not equipped with a viewport 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.11.6 Testing Requirements [40 CFR 63.1161] [40 CFR 63.1162]~~

~~(a) Within twelve (12) months of permit issuance, the Permittee shall conduct a performance test for the Pickling Line (S6A) to determine and demonstrate compliance with the applicable emission limitation according to the requirements of 40 CFR 63.7 (Subpart A, General Provisions). This initial performance test 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 half (2 .5) 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 HCL(ppmv) = 0.659 C HCL(mg/dscm), where C (ppmv) is concentration in ppmv and C (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.~~

~~D.11.7 Monitoring Requirements [40 CFR 63.1162]~~

~~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 63.1160(b)(2).~~

~~(b) Failure to record each of the operating parameters in 40 CFR 63.1162(a)(2) is a violation of the monitoring requirements of 40 CFR 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 Record Keeping Requirements~~

~~(a) To document compliance with Condition D.11.3, the Permittee shall maintain the following records pursuant to 40 CFR Part 63.1165:~~

~~(1) The Permittee, as required by 40 CFR Part 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 (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. This information can be recorded in a checklist or similar form (see 40 CFR Part 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 the provisions of 40 CFR 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 63, Subpart CCC records, for the most recent 2 years of operation must be maintained on site for 2 years. 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, of this permit.~~

~~D.11.9 Reporting Requirements [40 CFR 63.1164]~~

(a) ~~As required by 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 the 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 owner/operator or other responsible official, shall be submitted semiannually and delivered or postmarked by the 30th 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) Reports shall be submitted in accordance with Section C - General Reporting Requirements of this permit.~~

~~D.12.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart 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.~~

~~D.12.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 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 November 12, 2004. A copy of this rule is available on the US EPA Air Toxics Website at http://www.epa.gov/ttn/atw/eparules.html. Pursuant to 40 CFR 63.7495(b), the Permittee must comply with these requirements on and after September 13, 2007.~~

~~(b) The following emissions unit comprises the affected source for the large gaseous fuel subcategory:~~

~~No. 3 Galvanizing Line Radiant Tube Reducing Furnace (13 MMBtu/hr)~~
~~No. 4 Aluminizing Line Radiant Tube Reducing Furnace (19 MMBtu/hr)~~
~~No. 5 Galvanizing Line Radiant Tube Reducing Furnace (113 MMBtu/hr)~~
~~No. 3 Continuous Annealing and Aging Furnaces (85 MMBtu/hr)~~
~~No. 5 Batch Annealing Furnaces (136 MMBtu/hr)~~

~~(c) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.~~

(d) ~~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.~~

~~D.13.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart 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.~~

~~D.13.2 National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters [40 CFR Part 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 November 12, 2004. A copy of this rule is available on the US EPA Air Toxics Website at http://www.epa.gov/ttn/atw/eparules.html. Pursuant to 40 CFR 63.7495(b), the Permittee must comply with these requirements on and after September 13, 2007.~~

~~(b) The following emissions unit comprises the affected source for the large gaseous fuel subcategory:~~

~~No.2 AC Station Boilers 211-213~~
~~No. 5 Boilerhouse 501-503.~~

~~(c) The definitions of 40 CFR 63, Subpart DDDDD at 40 CFR 63.7575 are applicable to the affected source.~~

~~(d) 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.~~

~~D.13.14 Requirement to Submit a Significant Permit Modification 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 for IDEM, OAQ to incorporate into the Part 70 permit the applicable requirements of 40 CFR 63, Subpart DDDDD, 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 September 13, 2007.~~

~~(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~~
~~MC 61-53 IGCN 1003~~
~~Indianapolis, Indiana 46204-2251~~

~~D.15.1 Volatile Organic Storage Vessels [40 CFR Part 60, Subpart Kb]~~

~~The 1,016,000 gallon storage tank (T-6E1) is subject to 40 CFR Part 60, Subpart Kb because the maximum capacity of the tank is greater than 40 m^3 and is used to store volatile organic liquids for~~
whi ~~ch construction, reconstruction, or modification commenced after July 23, 1984. Pursuant to this rule, the Permittee must maintain records as required by 40 CFR 60.116b(a) and 60.116b(b).~~

~~D.15.3 NESHAP Operational and equipment standards [40 CFR Part 63.63.1159, Subpart CCC] Hydrochloric acid storage vessels~~

~~The Permittee shall provide and operate, except during loading and unloading of acid, a closed-vent system for tanks T11-12a, T11-12b, T11-12c, and T11-12d. 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.15.4 Monitoring Requirements [40 CFR P art 63.1162]~~

~~The Permittee shall inspect tanks T11-12a, T11-12b, T11-12c, and T11-12d 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.~~

~~D.15.5 Record Keeping Requirements~~

~~Pursuant to 40 CFR Part 60.116b the requirements for tank T-6E1 are as follows:~~

~~(a) The Permittee shall keep copies of all records required by 40 CFR Part 60.116b (a), except for the record required by 40 CFR Part 60.116b (b), for at least 2 years. The record required by 40 CFR Part 60.116b(b) will be kept for the life of the source.~~

~~(b) The Permittee of each storage vessel as specified in 40 CFR Part 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel.~~

SECTION G.1

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

The affected sources are each new or existing sinter plant windbox exhaust, discharge end, and sinter cooler; the blast furnace casthouse; and the BOF shop including each individual BOF and shop ancillary operations (hot metal transfer, hot metal desulfurization, slag skimming, and ladle metallurgy.

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

G.1.1 General Provisions Relating to HAPs [326 IAC 20-1][40 CFR 63, Subpart A] [Table 4 to 40 CFR 63, Subpart FFFFF]

(a) The provisions of 40 CFR 63, Subpart A- General Provisions, which are incorporated by reference as 326 IAC 20-1-1, apply to the affected sources, except when otherwise specified by Table 4 to 40 CFR 63, Subpart FFFFF.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

G.1.2 National Emission Standards for Hazardous Air Pollutants (HAPs): Integrated Iron and Steel Manufacturing - Sinter Plants [40 CFR 63, Subpart FFFFF] [326 IAC 20-1]

The Permittee shall comply with the following provisions of 63, Subpart FFFFF (included as Attachment A of the permit), which are incorporated by reference in 326 IAC 20-1:

(a) 40 CFR 63.7780

(b) 40 CFR 63.7781

(c) 40 CFR 63.7782

(d) 40 CFR 63.7783

(e) 40 CFR 63.7790

(f) 40 CFR 63.7800

(g) 40 CFR 63.7810

(h) 40 CFR 63.7820

(i) 40 CFR 63.7821

(j) 40 CFR 63.7822

(k) 40 CFR 63.7823

(l) 40 CFR 63.7824

(m) 40 CFR 63.7825

(n) 40 CFR 63.7826

(o) 40 CFR 63.7830

(p) 40 CFR 63.7831

(q) 40 CFR 63.7832

(r) 40 CFR 63.7833

(s) 40 CFR 63.7834

(t) 40 CFR 63.7835

(u) 40 CFR 63.7840

(v) 40 CFR 63.7841

(w) 40 CFR 63.7842

(x) 40 CFR 63.7843

(y) 40 CFR 63.7850

(z) 40 CFR 63.7851

(aa) 40 CFR 63.7852

(bb) Table 1

(cc) Table 2

(dd) Table 3

(ee) Table 4

SECTION G.2

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

(d) One (1) pulverized coal injection (PCI) system with a maximum capacity of 132 tons per hour for Nos. 5, 6 and 7 blast furnaces, constructed in 1991, comprised of the following facilities, process equipment, and operational practices:

(1) Raw coal handling, including rail car unloading facilities and 50,000 ton capacity storage pile (stack 192).

(2) System A- RC-1 and RC-2 conveyors with a maximum throughput of 400 tons per hour, used to move coal to raw coal storage bins, with a baghouse to control emissions at transfer points and exhausting through stack 185.

(3) System C- RC-2, RC-3 and RC-4 conveyors and two (2) Raw Coal Storage Bins with a storage capacity of 750 tons each, with a baghouse to control emissions at transfer points and exhausting through stack 186.

(4) System D and E-Two (2) 66 ton per hour Pulverizers, with a recovery cyclone and baghouse D and E in series on each unit exhausting through stack 187.

(5) System F and G- Two (2) 66 ton per hour Conveyors to two (2) Pulverized Coal Storage Bins with a total storage capacity of 30,000 cubic feet, each controlled by a baghouse F and G, exhausting through stack 189 and 190, respectively.

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

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

(a) The provisions of 40 CFR 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section G.2, except when otherwise specified in 40 CFR 60, Subpart Y.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

G.2.2 New Source Performance Standards for Coal Preparation Plants [40 CFR 60, Subpart Y] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Y (included as Attachment B of the permit), which are incorporated by reference in 326 IAC 12:

(1) 40 CFR 60.250;

(2) 40 CFR 60.251;

(3) 40 CFR 60.252;

(4) 40 CFR 60.253(a)(1);

(5) 40 CFR 60.253(b); and

(6) 40 CFR 60.254.

SECTION G.3

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

The No.1 and No. 2 Kiln baghouses (45), (49), and their associated cooler(s), and processed stone handling (PSH) operation system(s)

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

G.3.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

(a) The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the affected source except when otherwise specified in Table 8 to 40 CFR 63 Subpart AAAAA.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

G.3.2 National Emissions Standards for Hazardous Air Pollutants for Lime Manufacturing Plants [40 CFR 63, Subpart AAAAA]

The Permittee shall comply with the following provisions of 40 CFR 63, Subpart AAAAA (included as Attachment C of the permit), which are incorporated by reference in 326 IAC 20-1:

(a) 40 CFR 63.7080

(b) 40 CFR 63.7081

(c) 40 CFR 63.7082

(d) 40 CFR 63.7083

(e) 40 CFR 63.7090

(f) 40 CFR 63.7111

(g) 40 CFR 63.7112

(h) 40 CFR 63.7113

(i) 40 CFR 63.7114

(j) 40 CFR 63.7120

(k) 40 CFR 63.7121

(l) 40 CFR 63.7130

(m) 40 CFR 63.7131

(n) 40 CFR 63.7132

(o) 40 CFR 63.7133

(p) 40 CFR 63.7140

(q) 40 CFR 63.7141

(r) 40 CFR 63.7142

(s) 40 CFR 63.7143

(t) Table 1

(u) Table 2

(v) Table 3

(w) Table 4

(x) Table 5

(y) Table 6

(z) Table 7

(aa) Table 8

SECTION G.4

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

(a) No. 4 Pickling Line, constructed in 1958, including acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 178.

(b) No. 5 Picking Line, including scale breaker mill, acid tanks and cascade rinse box with emissions controlled by a scrubber exhausting through stack 176.

(c) Two (2) 30,000 gallon tanks (T11-12a & T11-12b) containing regenerated Hydrochloric Acid located north of bulk storage building No. 3 Cold Strip West, designated as #1 elevated tank and #2 elevated tank, constructed in 1970.

(d) Two (2) 30,000 gallon tanks (T11-12c & T11-12d) containing regenerated Hydrochloric Acid located west of bulk storage building No. 3 Cold Strip West, designated as Tank #4 and Tank #5, constructed in 1999.

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

G.4.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63. 63.1155, the Permittee shall comply with the provisions of 40 CFR Part 63 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the Pickle Line except as otherwise specified in 40 CFR Part 63, Subpart CCC.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

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

The Permittee which engages in the steel pickling-HCl process shall comply with the following provisions of 40 CFR 63, Subpart CCC (included as Attachment D of this permit), with a compliance date of June 22, 2001:

(1) 40 CFR 63.1155

(2) 40 CFR 63.1156

(3) 40 CFR 63.1157(a)

(4) 40 CFR 63.1159(b)

(5) 40 CFR 63.1160(a) and (b)

(6) 40 CFR 63.1161(a) and (b)

(7) 40 CFR 63.1162(a) and (c)

(8) 40 CFR 63.1163

(9) 40 CFR 63.1164

(10) 40 CFR 63.1165

(11) 40 CFR 63.1166

(12) Table 1

SECTION G.5

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

One (1) 1,016,000 gallon tank (T-6E1) containing #6 fuel oil, located at Plant #1 Fuel Oil, constructed in 1992.

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

G.5.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) The provisions of 40 CFR 60, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section G.5, except when otherwise specified in 40 CFR 60, Subpart Kb.

(b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

G.5.2 Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60, Subpart Kb] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR 60, Subpart Kb (included as Attachment E of the permit), which are incorporated by reference in 326 IAC 12:

(1) 40 CFR 60.110b

(2) 40 CFR 60.111b

(3) 40 CFR 60.251

(4) 40 CFR 60.251

7. Particulate Control conditions have been revised to clarify units and operations.

D.2.~~16~~**15**Particulate Control [326 IAC 2-7-6(6)]

***

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

(c) The No. 7 blast furnace casthouse west baghouse (166) for PM control shall be in operation at all times that the No. 7 blast furnace is casting **under normal damper operating configurations. When the west baghouse is inoperable, casting may continue using cross-over control configuration routing control of both canopy and** #3 and #4 taphole~~s~~ **emissions to the east baghouse (167)**.

(d) The No. 7 blast furnace casthouse east baghouse (167) for PM control shall be in operation at all times that the No. 7 blast furnace casthouse is casting **under normal damper operating configurations. When the east baghouse is inoperable, casting may continue using cross-over control configuration routing control of both canopy and** #1 and #2 taphole~~s~~ **emissions to the west baghouse (166)**.

(e) Pursuant to construction permit 089-9033-00316, issued on February 26, 1998, the baghouses for the coke handling equipment (Stack IDs ~~268~~**164** and ~~269~~**169**) shall be ~~operated~~ **in operation when dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when**

coke material moisture content acts as an alternative dust suppression. ~~at all times when its associated process is in operation.~~

D.3.~~7~~6 Particulate Control [326 IAC 2-7-6(6)]

(a) The main and discharge end baghouses for particulate control shall be in operation at all times when the windbox, crusher, and cooler are in operation. During startup situations the windbox exhaust will not be initially directed to the main stack baghouse to prevent condensation damage to the baghouse. The exhaust will be redirected to the baghouse ~~before~~ **no later than the time at which** the exhaust temperature ~~exceeds~~ **reaches** 160 degrees F.

(b) Pursuant to Ispat's No. 3 Sinter Plant Fugitive Control Project which received an Exempt Construction and Operation Status Letter, CP 089-9176-00316 issued on March 30, 1998, the upper screening station baghouse **is only required to** operate~~s~~ when required by product fugitives. **Therefore, operations may continue using alternative dust suppression operating practices, such as water addition to the sinter bed, during periods of baghouse inoperability, (including but not limited to maintenance, bag failure or other conditions).**

D.4.~~4~~**3** Particulate Control [326 IAC 2-7-6(6)]

(a) In order to comply with D.4.1, the baghouses for PM_{10} control shall be in operation and control the PCI Systems A ~~-G~~ **and C.** ~~except B (which was never built) are in operation.~~ **When dust suppression is required to limit product fugitives. Operations may continue without operation of the dust collection systems when coal material moisture content acts as an alternative dust suppression. Daily visible emission notations shall be conducted at transfer points when the baghouses are not operating.**

(b) Pursuant to CP 089-2016-00316 issued on August 22, 1991, the equipment listed in the start of this section shall be operated and maintained in accordance with the manufacturer's specifications.

***

D.5.~~10~~**9** Particulate Control [326 IAC 2-7-6(6)]

(a) The No. 2 BOF truck and ladle hopper baghouse (150) for PM control shall be in operation at all times that any alloy unloading or handling is in process in the related controlled areas. **When the baghouse is not operating, operations may continue using the following alternative procedures.**

(i) Lime shall not be off loaded using rear dumping trucks. Bottom off loading trailers shall be used.

***

(d) The No. 2 BOF secondary ventilation system scrubber (149) for PM control shall be in operation at all times that either ~~of the furnaces are in operation.~~ **the No. 10 or No. 20 furnace is operating under normal conditions. When the No. 10 or No. 20 furnace is operating and the secondary ventilation scrubber is not operating, operations may continue using the following alternative BOF charging procedures.**

(1) The charging aisle emission control system shall be in operation.

(2) Each hotmetal charge shall be greater than 120 seconds in duration.

***

~~(f) The No. 2 BOF caster fume collection baghouse (159) for PM control shall be in operation all times that the continuous caster is in operation producing leaded steel/blooms.~~

~~(g) The No. 2 BOF tundish dump baghouse (156) for PM control shall be in operation at all times that the tundish dump and repair station are handling leaded steel/bloom tundishes. (This baghouse is only used for dumping leaded steel/bloom tundishes.)~~

(~~h~~**f**) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired, replaced, blanked or isolated. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.6.~~9~~**6** Particulate Control [326 IAC 2-7-6(6)]

(a) The hot metal transfer and desulfurization operation baghouses (26 and 27) for PM control shall be in operation at all times that any of the respective processes are in operation.

(b) The BOF and process off-gas scrubber system (38) and secondary ventilation baghouse (37) shall be in operation at all times that either ~~of~~ the **No. 50 or N0. 60** furnaces ~~are in operation~~ **are operating under normal conditions**.

***

8. Broken or Failed Bag Detection and Failure Detection Conditions have been revised per agreement of Permittee and IDEM OAQ.

~~D.1.7 Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~In the event that a scrubber system failure has been observed:~~

~~The feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable, 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).~~

~~D.2.19 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~D.3.11 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~D.4.7 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an~~

~~emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~D.5.14 Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~In the event that a scrubber system failure has been observed:~~

~~The feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable, 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).~~

~~D.5.16 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~For a single compartment baghouse controlling emissions from a process operated continuously a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~D.6.12 Failure Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~In the event that a scrubber system failure has been observed:~~

~~The feed to the process must be shut off immediately, and the process shall be shut down as soon as practicable, 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).~~

~~D.6.14 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

D.7.~~9~~**5** Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

~~For a single compartment baghouse controlling emissions from a process operated continuously, a failed units and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

(a) For a single compartment baghouses (217-1, 217-2 exhausting to stacks 46-1 and 46-2) controlling emissions from the dust bins, in the event that bag failure is observed, the feed to the dust bin controlled by the failed unit shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

(b) For a single compartment baghouses (408 exhausting to stack 48) controlling emissions from the truck loadout only from the ten silos, in the event that bag failure is observed, the feed controlled by the failed unit shall be shut down immediately during truck loadout until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

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

~~D.8.15 Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]~~

~~For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

9. Condition D.4.5 (now D.4.4) has been revised to clarify monitoring on a batch or discontinuous operation.

D.4.~~5~~**4** Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

***

(b) In the case of batch or discontinuous operations, readings shall be taken during normal operations.

(c) If visible emissions are observed, and corrective actions cannot be initiated within one hour of the observation, the Permittee shall record the reason that corrective action cannot be taken within the hour and an employee certified to perform an EPA Method 9 evaluation shall determine whether opacity exceeds twenty percent (20%) in one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4; and:

(1) If the opacity exceeds twenty percent (20%) per Method 9, the Permittee shall shut down the associated process as soon as practicable, unless either: (1) the Permittee is able to bring opacity to under twenty percent (20%) per Method 9 within a reasonable period of time; or (2) the situation qualifies as an "emergency" under 326 IAC 2-7-1(12). If the Permittee continues to operate the associated process after determining that opacity exceeds twenty percent (20%) per Method 9, then the Permittee shall perform an additional Method 9 reading once every four daylight hours until opacity is returned to under twenty percent (20%). Once the Permittee is able to return opacity to under twenty percent (20%) per this subsection (d), then Permittee shall perform response actions according to subsection (c)(1), (2) and/or (3), as appropriate.

(2) If opacity does not exceed twenty percent (20%) per the Method 9 observation referenced above, inspection of the baghouse shall be

scheduled at the next available process downtime. Repairs shall be scheduled as expeditiously as practical, based on the inspection results.

(3) If opacity exceeds twenty percent (20%) per any Method 9 observations referenced above, the Permittee must notify IDEM, if the Permittee anticipates that operations will continue for ten (10) days or more before the failed baghouse units will be repaired or replaced.

(d) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedences. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

~~(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.~~

~~(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.~~

~~(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.~~

~~(e) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.~~

10. Condition D.3.4 has been revised to allow for alternate testing method included in the MACT.

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

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

***

(e) Pursuant to 326 IAC 8-13-4(b)(8) and an Ozone Action Plan, the Permittee shall do the following:

(1) Use a VOC continuous emissions monitoring system consistent with the continuous emissions monitoring requirements specified in 326 IAC 8-13-8 to ensure compliance with the applicable emission limit~~s~~ **and as the approved alternate test method for the sinter plant VOC limit set forth in the Iron and Steel MACT**.

11. Conditions D.4.6 (now D.4.5), D.7.8 (now D.7.4), D.8.14 (now D.8.13) and D.14.9 (now D.14.8) has been revise to allow pressure ranges to be established during testing and to allow calibration in accordance with the manufacturer's instructions.

D.4.~~6~~**5** Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouses used in conjunction with the Coal pulverizer D (187) and Coal pulverizer E (188) at least once per day when the coal pulverizers are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 0.25 **-**1.5 kPa ~~or a range established during the latest stack test~~, **or an extended range established by an IDEM approved compliance stack test**, the Permittee shall take

reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated ~~at least once every six (6) months~~ **in accordance with the manufacturer's instructions but not less frequently than once per year**.

D.7.~~8~~**4** Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the ~~No.1 and No. 2 Kiln baghouses (45) and (49) and~~ Storage Silo baghouse (47) at least once per day when the No.1 and No. 2 Kiln and Storage Silo are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 9.0 inches of water ~~or a range established during the latest stack test~~, **or an extended range established by an IDEM approved compliance stack test**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated ~~at least once every six (6) months~~ **in accordance with the manufacturer's instructions but not less frequently than once per year**.

D.8.~~14~~**13** Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

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

(b) The Permittee shall record the pressure drop across the baghouse used in conjunction with the ladle metallurgical station processes (143) at least once per day when the ladle metallurgical station processes are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0-10.5 inches of water ~~or a range established during the latest stack test~~, **or an extended range established by an IDEM approved compliance stack test**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

(c) The Permittee shall record the pressure drop across the baghouses used in conjunction with the No. 1 EAF Shop Caster Tundish and Mold (137), Caster Torch Cutoff (138), and Ladle Dump and Repair (136) processes at least once per day when the No. 1 EAF Shop Caster Tundish and Mold (137), Caster Torch Cutoff (138), and Ladle Dump and Repair (136) processes are in operation producing leaded steel. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0-10.5 inches of water ~~or a range established during the latest stack test~~, **or an extended range established by an IDEM approved compliance stack test**, the Permittee shall take reasonable response

steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated ~~at least once every six (6) months~~ **in accordance with the manufacturer's instructions but not less frequently than once per year**.

D.14.~~9~~**8** Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the former mold foundry baghouse (43) stack ~~and No. 2 Slab Yard grinder baghouse (95) stack~~ once per day when the processes are in operation and venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water ~~or a range established during the latest stack test~~, **or an extended range established by an IDEM approved compliance stack test**, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ and shall be calibrated ~~at least once every six (6) months~~ **in accordance with the manufacturer's instructions but not less frequently than once per year**.

12. Condition D.5.7 has been revised to reflect that only production of leaded steel has been moved and not the equipment. Conditions D.5.1 (h) and (i), Conditions D.5.2 (i) and (j) have been removed because the bloom mill is idled and per Condition D.5.7, leaded steel production may only occur at the No. 1 EAF shop.

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

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

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

***

~~(h) TSP emissions from the No. 2 BOF caster fume collection baghouse (159) shall not exceed 0.0052 grains per dry standard cubic foot and 2.00 pounds per hour.~~

~~(i) TSP emissions from the No. 2 BOF tundish dump baghouse (156) shall not exceed 0.0052 grains per dry standard cubic foot and 2.200 pounds per hour.~~

***

D.5.2 Opacity [326 IAC 6.8-3]

***

~~(i) The opacity for the No. 2 BOF caster fume collection baghouse (159) shall not exceed five percent (5%), three (3) minute average.~~

(j) ~~The opacity for the No. 2 BOF tundish dump baghouse (156) shall not exceed five percent (5%), three (3) minute average.~~

13. **Conditions have been revised to reflect the numerous changes that have been made to the permit, including but not limited to renumbering, Table of Contents revision and removal of requirements that are no longer necessary.**

D.1.~~5~~**4** Particulate Control [326 IAC 2-7-6(6)]

***

D.1.~~8~~**5** Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

***

D.1.~~9~~**6** Record Keeping Requirements

(a) To document compliance with Conditions D. 1.3 and D.1.~~8~~**5**, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No. 5 and No. 6 Blast Furnaces.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

~~(b) To document compliance with Condition D.1.6, the Permittee shall maintain once per day records of the pressure drop across the scrubber and minimum flowrate during normal operation when venting to the atmosphere.~~

(~~c~~**b**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.~~10~~**7** Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.1.3 in order to document compliance with Conditions D. 1.3 and D.~~1.9~~**1.6**(a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.2.~~15~~**14** Carbon monoxide emissions – Compliance Requirements [326 IAC 2-2-3]

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D.2.~~20~~**16** Blast Furnace Gas Flare Monitoring [326 IAC 9-1-2][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

***

D.2.~~21~~**17** Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

***

D.2.~~22~~**18**Continuous Emissions Monitoring [326 IAC 3-5] [326 IAC 2-2-3]

(a) Pursuant to 326 IAC 3-5 (Continuous Monitoring of Emissions) and 326 IAC 2-2-3 (PSD BACT), the Permittee is required to calibrate, certify, operate and maintain a continuous emission monitoring system (CEMS) for measuring CO emissions rate from the No. 7 Blast Furnace stack (stack 170) in accordance with 326 IAC 3-5 and Condition D.2.~~23~~**19** to demonstrate compliance with Condition D.2.6(c)(1).

***

(c) The 30-day rolling average calculation shall be conducted as follows:

***

(ii) Daily average CO emissions will be calculated by taking the summation of the quality assured hourly average, obtained by Condition D.2.~~22~~**18**(c)(i), and dividing by the number of hours in which there was a quality assured hourly average, to determine the average CO emissions for a particular day.

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D.2.~~23~~**19**Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

***

D.2.~~24~~**20**Record Keeping Requirements

(a) To document compliance with Condition D.2.6(c)(1), the Permittee shall maintain the CO CEMS data for the emissions from stack 170 for No. 7 Blast Furnace Stoves in accordance with D.2.~~22~~**18**(c).

(b) To document compliance with Conditions D.2.12 and D.2.~~21~~**17**, the Permittee shall maintain the following records:

***

(e) ~~In order to document compliance with Condition D.2.17, the Permittee shall maintain records of once per day visible emission notations of the No. 7 blast furnace casthouse west baghouse (166) and No. 7 blast furnace casthouse east baghouse (167) stack exhaust(s). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).~~

(f) ~~In order to document compliance with condition D.2.18, the Permittee shall maintain once per day records of pressure drop across the baghouse during normal operation when venting to the atmosphere. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).~~

(~~g~~**e**) In order to document compliance with condition D.2.~~20~~**16**, the Permittee shall maintain records of the occurrence of alarm events at the flare and response steps taken to correct the same.

(~~h~~**f**) To document compliance with Conditions D.2.~~22~~**18** and D.2.~~23~~**19**, the Permittee shall maintain records, including raw data of all monitoring data and supporting information, for a minimum of five (5) years from the date described in 326 IAC 3-5-7(a). The records shall include the information described in 326 IAC 3-5-7(b).

(~~i~~**g**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.~~25~~**21** Reporting Requirements

(a) A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.2.12 and D.2.~~21~~**17**. The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

***

D.3.~~8~~**7** Continuous Emissions Monitoring [326 IAC 8-13-8]

***

D.3.~~12~~**8** Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

***

D.3.~~13~~**9** Record Keeping Requirements

(a) To document compliance with Conditions D.3.3 and D.3.~~12~~**8**, the Permittee shall maintain the following records:

***

~~(b) To document compliance with Condition D.3.9, the Permittee shall maintain records of once per day visible emission notations of the windbox main baghouse (7), and discharge end baghouse (8) stack exhausts.~~

~~(c) To document compliance with Condition D.3.10, the Permittee shall maintain once per day records of pressure drop across the baghouse during normal operation when venting to the atmosphere.~~

(~~d~~**b**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.~~14~~**10** Continuous Emission Monitoring - Record Keeping and Reporting [326 IAC 8-13]

***

D.3.~~15~~**11** Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MMBtu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.3.3 and D.3.~~13~~**9** (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.4.~~8~~**6** Record Keeping Requirements

(a) In order to document compliance with Condition D.4.~~5~~**4**, the Permittee shall maintain records of once per day visible emission notations of the Coal pulverizer D baghouse (187) and Coal pulverizer E baghouse (188) exhausts.

(b) In order to document compliance with Condition D.4.~~6~~**5**, the Permittee shall maintain the records once per day of the pressure drop across the baghouse during normal operation.

***

D.5.~~11~~**10**Particulate Matter (PM) and Carbon Monoxide (CO)

***

D.5.~~17~~**11**No.2 BOF Flare Monitoring [326 IAC 9-1-2][326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

***

D.5.~~18~~**12**Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

***

D.5.~~19~~**13**Record Keeping Requirements

***

(b) ~~In order to document compliance with condition D.5.13(a) and D.5.13(b), the Permittee shall maintain records of the pressure drop across the scrubbers and flowrate once per day during the blow portion of the steel production cycle and with condition D.5.13(c), the Permittee shall maintain records of the pressure drop across the scrubbers and flowrate once per day during normal operation.~~

(c ~~)~~ ~~In order to document compliance with condition D.5.15, the Permittee shall maintain once per day records of the pressure drop across the baghouse during normal operation when venting to the atmosphere.~~

(~~d~~**a**) To document compliance with Conditions D.5.4 and D.5.~~18~~**12**, the Permittee shall maintain the following records:

***

(e ~~–~~**b**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.5.~~20~~**14**Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.5.4, in order to document compliance with Conditions D.5.4 and D.5.~~19~~**13**(~~d~~**a**). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.6.~~6~~**4** Sulfur Dioxide (SO_2)[326 IAC 7-4.1-11]

***

(b) SO_2 emissions from the stack serving No. ~~2~~ **4** BOF secondary vent stack (37) shall not exceed 0.001 lbs/ton and 0.535 lbs/hour.

D.6.~~15~~**7** Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

***

D.6.~~16~~**8** Record Keeping Requirements

(a) ~~In order to document compliance with Condition D.6.10, the Permittee shall maintain records of once per day visible emission notations of the No. 4 BOF shop off-gas scrubber (38), No. 4 BOF shop secondary ventilation system baghouse (37) and No. 4 BOF hot metal transfer and desulfurization baghouses (26 and 27) stack exhausts.~~

(b) ~~To document compliance with Condition D.6.11, the Permittee shall maintain the records, once per day of the pressure drop across the scrubber and flow rate during normal operation.~~

~~(c) In order to document compliance with condition D.6.13, the Permittee shall maintain the records once per day of the pressure drop across the baghouses during normal operation.~~

(~~d~~**a**) To document compliance with Conditions D.~~5.4~~**6.4** and D.~~5.17~~**6.7**, the Permittee shall maintain the following records:

***

(e –**b**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.6.~~18~~**9** Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.6.~~6~~**4**, in order to document compliance with Conditions D.6.~~6~~**4** and D.6.~~16~~**8** (~~d~~**a**). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.7.~~4~~**2** Sulfur Dioxide [326 IAC 7-4.1-11]

***

D.7.~~6~~**3** Particulate Control [326 IAC 2-7-6(6)]

***

D.7.~~10~~**6** Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D. D.7.~~4~~**2**, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

D.7.~~11~~**7**Record Keeping Requirements

(a) ~~In order to document compliance with Condition D.7.7, the Permittee shall maintain records of once per day visible emission notations of the No.1 and No. 2 Kiln baghouses stacks (45) and (49).~~

(~~b~~**a**) To document compliance with Condition D.7.~~8~~**4**, the Permittee shall maintain the records of the pressure drop across the baghouses once per day during normal operation.

(~~c~~**b**) To document compliance with Conditions D.7.4 and D.7.~~10~~**6**, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the No.1 and No. 2 Kilns.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(d –**c**) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.7.~~13~~**8** Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MMBtu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of the limits in Condition D.7.~~4~~**2** in order to document compliance with Conditions D.7.~~4~~**2** and D.7.~~11~~**7**(c). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.8.~~16~~**14**Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

***

D.8.~~17~~**15**Record Keeping Requirements

(a) To document compliance with Conditions D.8.6 and D.8.~~16~~**14**, the Permittee shall maintain the following records:

(1) Records of the total coke oven gas, blast furnace gas, fuel oil, and natural gas usage for each day at the EAF.

(2) Records of the average sulfur content and heating value for each day for each fuel type used during the calendar quarter.

(3) Records of any compliance emissions calculations.

(b) In order to document compliance with Condition D.8.9(d), the Permittee shall maintain records of the tons of leaded steel produced at the No. 1 EAF Shop.

(c) In order to document compliance with Condition D.8.~~13~~**12**, the Permittee shall maintain records of once per day visible emission notations of the electric arc furnace operations bagh ouse stack exhaust(s). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(d) In order to document compliance with condition D.8.~~14~~**13**, the Permittee shall maintain the once per day records of the pressure drop across the baghouse during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

***

D.8.~~18~~**16** Reporting Requirements

(a) A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D. 8.6 and D.8.~~17~~**15** (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(b) A quarterly summary of the information to document compliance with Condition D.8.9(d) 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.

D.9.~~7~~**6** Testing Requirements [326 IAC 2-7-6(1), (6)][326 IAC 2-1.1-11]

***

D.9.~~8~~**7** Record Keeping Requirements

***

D.9.~~9~~**8** Rep orting Requirements

A quarterly summary of the information to document compliance with Condition D.9.3 and D.9.~~8~~**7** (a) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported.

D.10.~~5~~**4** Particulate Control [326 IAC 2-7-6(6)]

***

D.12.~~5~~**3** No. 4 Aluminizing Line Radiant Tube Reducing Furnace Limitations

***

D.12.~~6~~**4** Opacity

***

D.12.~~7~~**5** Sulfur Dioxide (SO2) [326 IAC 7-4.1-1]

***

D.12.~~8~~**6** Nitrogen Oxide (NOx) [326 IAC 2-2]

***

D.12.~~9~~**7** Carbon Monoxide (CO)[326 IAC 2-2]

***

D.12.~~10~~**8** Emission Offsets [326 IAC 2-3]

***

D.12.~~12~~**9** Particulate Matter (PM)

***

D.13.~~4~~**2** Sulfur Dioxide (SO_2) [326 IAC 7-4.1-11]

***

D.13.~~5~~**3** Carbon Monoxide (CO) - Best Available Control Technology [326 IAC 2-2-3]

***

(b) Pursuant to Significant Source Modification 089-16966-00316, issued on November 26, 2003, if the stack tests required under condition D.13.~~10~~**7** show that the CO emission limitations in condition D.13.~~5~~**3** are not achievable in practice, the Permittee can request the Department to re-evaluate the CO emissions limitations in D.13.~~5~~**3** (a). The department may, at its discretion, use the authority under IC 13-15-7-2 to re-open and revise the limit to more closely reflect the actual stack test results. The Department will provide an opportunity for public notice and comment prior to finalizing any permit decision. IC 13-15-7-3 (Revocation or Modification of a Permit: Appeal to Board) shall apply to this permit modification.

D.13.~~6~~**4** NOx Budget Unit Exemption [326 IAC 10-4-3]

***

D.13.~~7~~**5** Equipment and Operational Specifications [326 IAC 2-2]

***

D.13.~~8~~**6** Operation Restriction – Shutdown of No.4 AC Station [326 IAC 2-2][326 IAC 2-3]

***

D.13.~~11~~**8** Sulfur Dioxide (SO2) Sampling and Analysis [326 IAC 7-4.1-11(b)]

In order to comply with condition D.13.~~4~~**2**, the Permittee shall comply with the sampling and analysis protocol, in accordance with 326 IAC 7-4.1-11(b)(1).

D.13.~~12~~**9** Record Keeping Requirements

(a) To document compliance with Conditions D.13.~~4~~**2** and D.13.~~11~~**8**, the Permittee shall maintain the following records:

***

(b) To document compliance with D.13.~~6~~**4** and 326 IAC 10-4-3(e)(7), the Permittee shall retain records at the source, or at a central location within Indiana for those owners or operators with unattended sources, demonstrating that the units are permanently retired for a period of five (5) years. The five (5) year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the department of the U.S. EPA. Records retained at a central location within Indiana shall be available immediately at the location and submitted to the department or U.S. EPA within three (3) business days following receipt of a written request.

***

D.13.~~13~~**10** Reporting Requirements

A quarterly report shall be submitted containing the calculated SO_2 emission rate in lb/MM Btu for each facility for each day in quarter, total fuel usage for each type at each facility each day and any violations of limit 326 IAC 7-4.1-11 (b)(2), in order to document compliance with Conditions D.13.~~4~~**2** and D.13.~~12~~**9** (a). The quarterly report shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

D.15.~~2~~**1** Volatile Organic Liquid Storage Vessels [326 IAC 8-9]

Pursuant to 326 IAC 8-9-1, the Permittee is required to keep records on the information in 326 IAC 8-9-6(a)-(b) for all storage vessels containing recycled oil, #2 fuel oil, #6 fuel oil, bunker oil and recl aim oil.

D.15.~~6~~**2** Record Keeping Requirements

***

14. Appendix App-1, Table 3-2 and App-2, Table 3-17 has been changed. Lime plant emission factors of 0.425 have been added on Lines 26 and 27 in each of the designated tables (attached to this addendum).

15. Condition A.2 has been changed to update the list of current contractors at the site.

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

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

***

(e) Heckett MultiServ (Plant ID 089-00367), the on-site contractor (a ~~slag and kish processing plant and~~ scarfing operation), is located at 3236 Watling Street, East Chicago, Indiana;

***

~~(k) Heritage Slag Products, LLC (Plant ID 089-00481), the on-site contractor (a slag crushing and sizing operation), is located at 3210 Watling Street, East Chicago, Indiana 46312~~

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

***

Company Name	TV Permit Number
ArcelorMittal USA, Inc.	089-6577- 00316
Fritz Enterprises Inc.	089-20315-00465
Beemsterboer Slag and Ballast Corp.	089-6580-00356
East Chicago Recovery	089-6583-00358
Heckett MultiServ	089-6581-00367
Oil Technology, Inc.	089-6579-00369
Mid Continent Coal and Coke	089-6582-00371
Indiana Harbor Coke Company	089-11311-00382
Cokenergy, Inc.	089-11135-00383
LAFARGE North America	089-14766-00458
~~Heritage Slag Products, LLC~~ **Phoenix Services LLC, dba Metal Services LLC**	~~089-21048-00481~~ **089-26806-00536**

16. Condition D.8.4 has been revised to remove requirements that have since passed and no longer required.

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

***

(c) The amount of molten steel to be processed in the LMF (ss-2) shall not exceed 792,077 tons per year and SO_2 shall not exceed 0.107 pounds per ton. ~~During the first 12 months after this modification, the average amount of molten steel processed shall not exceed an average of 66,006 tons per month. (Sullfur Dioxide Emission limitations).~~

17. Numerous changes were made to Section D.14 to remove the No. 2 Slab Yard which was permitted but never constructed.

~~D.14.2 Particulate Matter Limitations [326 IAC 2-2] [326 IAC 2-1.1-5]~~

~~(a) The PM emissions from No. 2 Slab Yard Grinder (including PM emissions captured by the collection system and PM emissions not captured by the control system) shall be limited to less than 5.7 lbs/hr.~~

~~(b) The PM10 emissions from No. 2 Slab Yard Grinder (including PM10 emissions captured by the collection system and PM10 emissions not captured by the control system) shall be limited to less than 3.42 lbs/hr.~~

~~(c) The minimum capture efficiency of the No. 2 Slab Yard Grinder Baghouse shall be 85% for PM and PM10.~~

~~Compliance with these emission limits and minimum capture efficiency will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM10 per year and therefore will render the requirements of 326 IAC 2-2 and 326 IAC 2-1.1-5 not applicable.~~

D.14.~~3~~**2** Prevention of Significant Deterioration and Emission Offset [326 IAC 2-2][326 IAC 2-3]

***

D.14.~~4~~**3** Sulfur Dioxide (SO2)[326 IAC 7-4.1-11]

***

D.14.~~6~~**4** Particulate Control [326 IAC 2-7-6(6)]

(a) The former Mold Foundry, No. 6 Roll shop, Electric shop, **and** No. 4 Roll Shop~~, and No. 2 Slab Yard grinder~~ baghouses shall be operated at all times that related processes at the subject facilities are operating. At the former Mold Foundry that equipment includes Pugh Ladle Car Lancing.

***

~~D.14.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]~~

~~Within 60 days after achieving maximum capacity but no later than 180 days after startup of the No. 2 Slab Yard grinder, in order to demonstrate compliance with Condition D.14.2(a) and (b), the Permittee shall perform PM and PM10 testing on the No. 2 Slab Yard grinder baghouse stack 95 utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. All associated facilities exhausting to a single stack must be operating when determining compliance with the limit. PM10 includes filterable and condensable PM10.~~

D.14.~~8~~**5** Visible Emissions Notations [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

***

~~(b) Visible emission notations of the No. 2 Slab Yard grinder baghouse (95) stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.~~

(~~c~~**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.

(~~d~~**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.

(~~e~~**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.

(f ~~-~~**e**) If abnormal emissions are observed, the Permittee shall take reasonable steps in accordance with Section C-Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C- Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.14.~~8~~**6** Baghouse Parametric Monitoring [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the former mold foundry baghouse (43) stack ~~and No. 2 Slab Yard grinder baghouse (95) stack~~ once per day when the processes are in operation and venting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 8.0 inches of water or an extended range established by an IDEM approved compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A reading that is outside the ranges is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation of this permit.

***

D.14.~~10~~**7** Broken or Failed Bag Detection [326 IAC 2-7-6(1)][326 IAC 2-7-5(1)]

***

D.14.~~11~~**8** Record Keeping Requirements

(a) To document compliance with Condition D.14.~~8~~**5** the Permittee shall maintain records of once per day visible emission notations of the former mold foundry baghouse (43) stack ~~and No. 2 Slab Yard baghouse (95) stack~~ exhaust~~s~~.

(b) To document compliance with Condition D.14.~~9~~**6**, the Permittee shall maintain once per day records of the pressure drop across the former mold foundry baghouse (43) ~~and No. 2 Slab Yard baghouse (95)~~ during normal operation when venting to the atmosphere.

***

Conclusion

This significant permit modification was prepared to resolve the petition for administrative review of their Part 70 Operating Permit (Cause No. 06-A-J-3808). The staff recommends to the Commissioner that this Part 70 Significant Permit Modification be approved.

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
PM_{10}
(All Additional Hot Metal Through No. 2 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor Filterable	Emission Factor Condensible	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
										(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	30.10		30.100	lb/hr	N/A	30.100	4.35	0.9930	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	289	hours	19.30		19.300	lb/hr	N/A	19.300	2.79	0.6367	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.42		0.420	lb/ton	95.00%	0.021	8.11	1.8522	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.10		0.10	lb/ton	99.90%	0.0001	0.01	0.0034	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.04		0.04	lb/ton	98.00%	0.0008	0.12	0.0271	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.05		0.05	lb/ton	99.00%	0.0005	0.32	0.0739	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.031		0.031	lb/ton	N/A	0.0310	1.26	0.2885	Clean water quench @ 250 mg/l TDS
	Slag Granulator Operations	146,341	slag	0.087		0.0870	lb/ton	N/A	0.0870	6.37	1.4534	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.28		0.28	lb/ton	99.80%	0.00056	0.10	0.0239	T-089-6577-00316, Appendix A
	Coal Storage Baghouse C	373,155	coal	0.39		0.39	lb/ton	99.80%	0.00078	0.15	0.0332	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse D	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse E	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Storage Baghouse F	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Storage Baghouse G	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Unloading	373,155	coal	0.010		0.01	lb/ton	85.00%	0.0015	0.28	0.0639	T-089-6577-00316, Appendix A
Lime Plant	Silo Baghouses	200.0	hours	5.53		5.53	lb/hr	N/A	5.53	0.55	0.1263	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	200.0	hours	3.575	**0.425**	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	200.0	hours	3.575	**0.425**	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.35		0.35	lb/ton	98.00%	0.007	0.18	0.0402	T-089-6577-00316, Appendix A
	Truck Loadout Baghouse	50,335	lime	2.40		2.40	lb/ton	99.80%	0.0048	0.12	0.0276	T-089-6577-00316, Appendix A
No. 2 BOF	10 Furnace Stack	454,482	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	12.82	2.9275	T-089-6577-00316, Appendix A
	20 Furnace Stack	454,482	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	12.82	2.9275	T-089-6577-00316, Appendix A
	Caster Roof Monitor	908,965	slabs	0.0015		0.0015	lb/ton		0.0015	0.68	0.1556	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	908,965	molten steel	0.4600		0.46	lb/ton	98.60%	0.0064	2.93	0.6682	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	908,965	molten steel	1.85		1.8500	lb/ton	98.50%	0.028	12.61	2.8794	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	908,965	hot metal	0.71		0.710	lb/ton	97.00%	0.0213	9.68	2.2102	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	58,829	flux	1.06		1.06	lb/ton	99.00%	0.011	0.31	0.0712	T-089-6577-00316, Appendix A
	Flux Storage and Batch Baghouse	58,829	flux	0.71		0.71	lb/ton	99.00%	0.0071	0.21	0.0477	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.051	0.0112	0.0622	lb/ton	70.00%	0.01866	8.48	1.9362	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	0	molten steel	13.60	1.500	15.100	lb/ton	98.83%	0.177	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	0	hours	23.74		23.74	lb/hr	N/A	23.74	0.00	0.0000	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	0	hot metal	1.15		1.150	lb/ton	98.50%	0.017	0.00	0.0000	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	0	hot metal	1.15		1.150	lb/ton	98.50%	0.017	0.00	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	0	molten steel	0.050	0.0110	0.0610	lb/ton	70.00%	0.0183	0.00	0.0000	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	0	lime alloys	0.0010		0.0010	lb/ton		0.001	0.00	0.0000	T-089-6577-00316, Appendix A
	Torch Cut	0	molten steel	0.002025		0.002025	lb/ton		0.002025	0.00	0.0000	T-089-6577-00316, Appendix A
	RHOB Condensers	0	molten steel	0.10		0.10	lb/ton	99.80%	0.0002	0.00	0.0000	T-089-6577-00316, Appendix A
	RHOB Material Handling	0	molten steel	0.10		0.10	lb/ton	98.00%	0.002	0.00	0.0000	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	0	lime alloys	0.001		0.100	lb/ton		0.100	0.00	0.0000	T-089-6577-00316, Appendix A

Conversions	
Pound per ton	2,000
Hours per year	8,760

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
PM_{10}
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor Filterable	Emission Factor Condensible	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
										(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	30.10		30.100	lb/hr	N/A	30.100	4.35	0.9930	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	289	hours	19.30		19.300	lb/hr	N/A	19.300	2.79	0.6367	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.42		0.420	lb/ton	95.00%	0.021	8.11	1.8522	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.10		0.10	lb/ton	99.90%	0.0001	0.01	0.0034	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.04		0.04	lb/ton	98.00%	0.0008	0.12	0.0271	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.05		0.05	lb/ton	99.00%	0.0005	0.32	0.0739	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.031		0.031	lb/ton	N/A	0.0310	1.26	0.2885	Clean water quench @ 250 mg/l TDS
	Slag Granulator Operations	146,341	slag	0.087		0.0870	lb/ton	N/A	0.0870	6.37	1.4534	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.28		0.28	lb/ton	99.80%	0.00056	0.10	0.0239	T-089-6577-00316, Appendix A
	Coal Storage Baghouse C	373,155	coal	0.39		0.39	lb/ton	99.80%	0.00078	0.15	0.0332	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse D	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse E	289	hours	0.99		0.99	lb/hr	N/A	0.990	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Storage Baghouse F	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Storage Baghouse G	373,155	coal	0.409		0.41	lb/ton	99.80%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Unloading	373,155	coal	0.010		0.01	lb/ton	85.00%	0.0015	0.28	0.0639	T-089-6577-00316, Appendix A
Lime Plant	Silo Baghouses	200.0	hours	5.53		5.53	lb/hr	N/A	5.53	0.55	0.1263	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	200.0	hours	3.575	0.425	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	200.0	hours	3.575	0.425	4.00	lb/hr	N/A	4.000	0.40	0.0913	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.35		0.35	lb/ton	98.00%	0.007	0.18	0.0402	T-089-6577-00316, Appendix A
	Truck Loadout Baghouse	50,335	lime	2.40		2.40	lb/ton	99.80%	0.0048	0.12	0.0276	T-089-6577-00316, Appendix A
No. 2 BOF	10 Furnace Stack	0	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	13.10	0.0226	13.1226	lb/ton	99.57%	0.0564	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.0015		0.0015	lb/ton		0.0015	0.00	0.0000	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	0	molten steel	0.4600		0.46	lb/ton	98.60%	0.0064	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	1.85		1.8500	lb/ton	98.50%	0.028	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.71		0.710	lb/ton	97.00%	0.0213	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	1.06		1.06	lb/ton	99.00%	0.011	0.00	0.0000	T-089-6577-00316, Appendix A
	Flux Storage and Batch Baghouse	0	flux	0.71		0.71	lb/ton	99.00%	0.0071	0.00	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	0	molten steel	0.051	0.0112	0.0622	lb/ton	70.00%	0.01866	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	13.60	0.023	13.623	lb/ton	98.83%	0.159	72.44	16.5387	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	363	hours	23.74		23.74	lb/hr	N/A	23.74	4.30	0.9824	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	1.15		1.150	lb/ton	98.50%	0.017	3.33	0.7607	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	1.15		1.150	lb/ton	98.50%	0.017	3.33	0.7607	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.050	0.0110	0.0610	lb/ton	70.00%	0.0183	8.32	1.8989	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.0010		0.0010	lb/ton		0.001	0.03	0.0067	T-089-6577-00316, Appendix A
	Torch Cut	908,965	molten steel	0.002025		0.002025	lb/ton		0.002025	0.92	0.2101	T-089-6577-00316, Appendix A
	RHOB Condensers	908,965	molten steel	0.10		0.10	lb/ton	99.80%	0.0002	0.09	0.0208	T-089-6577-00316, Appendix A
	RHOB Material Handling	908,965	molten steel	0.10		0.10	lb/ton	98.00%	0.002	0.91	0.2075	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.001		0.100	lb/ton		0.100	2.94	0.6716	T-089-6577-00316, Appendix A

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
PARTICULATE MATTER
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	22.00	lb/hr	N/A	22.00	3.18	0.7258	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	289	hours	11.22	lb/hr	N/A	11.22	1.62	0.3702	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.60	lb/ton	95.00%	0.03	11.59	2.6460	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.20	lb/ton	99.90%	0.0002	0.03	0.0068	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.09	lb/ton	99.00%	0.0009	0.13	0.0305	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.10	lb/ton	99.50%	0.0005	0.32	0.0739	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.045	lb/ton	N/A	0.0450	1.83	0.4188	Clean water quench @ 250 mg/l TDS
	Slag Granulator Operations	146,341	slag	0.087	lb/ton	N/A	0.087	6.37	1.4534	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.56	lb/ton	99.90%	0.00056	0.10	0.0239	T-089-6577-00316, Appendix A
	Coal Storage Baghouse C	373,155	coal	0.78	lb/ton	99.90%	0.00078	0.15	0.0332	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse D	289	hours	0.99	lb/hr	N/A	0.99	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Pulverizer Baghouse E	289	hours	0.99	lb/hr	N/A	0.99	0.14	0.0327	T-089-6577-00316, Appendix A
	Coal Storage Baghouse F	373,155	coal	0.818	lb/ton	99.90%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Storage Baghouse G	373,155	coal	0.818	lb/ton	99.90%	0.000818	0.15	0.0348	T-089-6577-00316, Appendix A
	Coal Unloading	373,155	coal	0.010	lb/ton	85.00%	0.0015	0.28	0.0639	T-089-6577-00316, Appendix A
Lime Plant	Silo Baghouses	200.0	hours	5.53	lb/hr	N/A	5.5300	0.55	0.1263	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	200.0	hours	3.575	lb/hr	N/A	3.5745	0.36	0.0816	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	200.0	hours	3.575	lb/hr	N/A	3.5745	0.36	0.0816	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.70	lb/ton	99.00%	0.007	0.18	0.0402	T-089-6577-00316, Appendix A
	Truck Loadout Baghouse	50,335	lime	5.00	lb/ton	99.80%	0.01	0.25	0.0575	T-089-6577-00316, Appendix A
No. 2 BOF	10 Furnace Stack	0	molten steel	28.50	lb/ton	99.80%	0.057	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	28.50	lb/ton	99.80%	0.057	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.0035	lb/ton	N/A	0.0035	0.00	0.0000	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	0	molten steel	0.6636	lb/ton	99.30%	0.0046	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	3.32	lb/ton	99.20%	0.027	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	1.28	lb/ton	98.00%	0.026	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	2.13	lb/ton	99.50%	0.01	0.00	0.0000	T-089-6577-00316, Appendix A
	Flux Storage and Batch Baghouse	0	flux	1.42	lb/ton	99.50%	0.007	0.00	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	0	molten steel	0.10	lb/ton	70.00%	0.03	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	28.50	lb/ton	99.40%	0.171	77.72	17.7435	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	363	hours	22.30	lb/hr	N/A	22.3000	4.04	0.9228	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	1.28	lb/ton	99.60%	0.00512	0.99	0.2258	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	1.28	lb/ton	99.60%	0.00512	0.99	0.2258	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.100	lb/ton	70.00%	0.030	13.63	3.1129	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.001	lb/ton		0.001	0.03	0.0067	T-089-6577-00316, Appendix A
	Torch Cut	908,965	molten steel	0.0035	lb/ton		0.0035	1.59	0.3632	T-089-6577-00316, Appendix A
	RHOB Condensers	908,965	molten steel	0.20	lb/ton	99.80%	0.0004	0.18	0.0415	T-089-6577-00316, Appendix A
	RHOB Material Handling	908,965	molten steel	0.20	lb/ton	99.00%	0.002	0.91	0.2075	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.001	lb/ton		0.001	0.03	0.0067	T-089-6577-00316, Appendix A

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
SULFUR DIOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Annual Change in Emissions		Source of Emission Factor
						(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.1774	lb/ton	34.27	7.8232	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.1774	lb/ton	34.27	7.8232	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.01	lb/ton	3.86	0.8820	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Slag Pit Operations	81,527	slag	0.578	lb/ton	23.56	5.3793	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.100	lb/ton	7.32	1.6706	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 2 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.070	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	0.070	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.000	lb/ton	0.00	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.025	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.014	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.0094	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0004	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.001	lb/ton	0.45	0.1038	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.001	lb/ton	0.45	0.1038	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.0094	lb/ton	1.82	0.4145	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.0094	lb/ton	1.82	0.4145	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.00003	lb/ton	0.01	0.0031	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
CARBON MONOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.5600	lb/ton		0.5600	108.17	24.6956	July 25, 2007 Modification Request
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	2.2200	lb/ton		2.2200	428.80	97.9005	July 25, 2007 Modification Request
	Casthouse Fugitives	772,620	hot metal	0.012	lb/ton		0.012	4.64	1.0584	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.066	lb/ton		0.066	2.69	0.6142	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.066	lb/ton		0.066	4.83	1.1026	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr		0.000	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	2.000	lb/ton		2.000	50.34	11.4921	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	50,335	lime	2.000	lb/ton		2.000	50.34	11.4921	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	139.00	lb/ton	90.25%	13.55	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	139.00	lb/ton	90.25%	13.55	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.000	lb/ton		0.000	0.00	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.042	lb/ton		0.042	0.00	0.0000	T-089-6577-00316, Appendix A
	Gas Cleaning System	0	molten steel	0.022	lb/ton		0.022	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.139	lb/ton		0.139	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0042	lb/ton		0.0042	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	139	lb/ton	94.22%	8.031	3,650.14	833.3650	T-089-6577-00316, Appendix A
	Gas Cleaning System	908,965	molten steel	0.0470	lb/ton		0.0470	21.36	4.8769	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.139	lb/ton		0.139	63.17	14.4231	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Roof Monitor	908,965	molten steel	0.0042	lb/ton		0.0042	1.90	0.4327	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	1.07	lb/ton	98.00%	0.0214	9.73	2.2205	T-089-6577-00316, Appendix A
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable
	RHOB Gas Cleaning System	908,965	molten steel	0.0925	lb/ton		0.0925	42.04	9.5981	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton		0.00	0.00	0.0000	Not Applicable

ARCELOR MITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
NITROGEN OXIDES
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Annual Change in Emissions		Source of Emission Factor
						(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.0248	lb/ton	4.79	1.0937	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.0248	lb/ton	4.79	1.0937	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.0012	lb/ton	0.46	0.1058	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton	0.00	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.0248	lb/ton	1.01	0.2308	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.0100	lb/ton	0.73	0.1671	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 2 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.08	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	0.08	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.0000	lb/ton	0.00	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.003	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.020	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.0024	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0006	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.080	lb/ton	36.36	8.3010	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.020	lb/ton	9.09	2.0753	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.0024	lb/ton	0.46	0.1058	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.0024	lb/ton	0.46	0.1058	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.0006	lb/ton	0.27	0.0623	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
VOC
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Annual Change in Emissions		Source of Emission Factor
						(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.00922	lb/ton	1.78	0.4064	T-089-6577-00316, Appendix A
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.00922	lb/ton	1.78	0.4064	T-089-6577-00316, Appendix A
	Casthouse Fugitives	772,620	hot metal	0.0009	lb/ton	0.35	0.0794	T-089-6577-00316, Appendix A
	Coke Transfer Station	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.000	lb/ton	0.00	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.000	lb/ton	0.00	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.00234	lb/ton	0.10	0.0218	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.00100	lb/ton	0.07	0.0167	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.000	lb/ton	0.00	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 1 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	No. 2 Kiln Baghouse	50,335	lime	0.000	lb/hr	0.00	0.0000	Not Applicable
	Micro-Pulse Baghouse (2)	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000	lb/ton	0.00	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.001	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack	0	molten steel	0.001	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Caster Roof Monitor	0	slabs	0.002	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Ladle Metallurgy Station	0	molten steel	0.000	lb/ton	0.00	0.0000	Not Applicable
	Secondary, Ventilation System Scrubber	0	molten steel	0.005	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.001	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton	0.00	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.00015	lb/ton	0.00	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.001	lb/ton	0.45	0.1038	T-089-6577-00316, Appendix A
	Secondary Vent System Baghouse	908,965	molten steel	0.005	lb/ton	2.27	0.5188	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.001	lb/ton	0.19	0.0441	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.001	lb/ton	0.19	0.0441	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.00015	lb/ton	0.07	0.0156	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.002	lb/ton	0.91	0.2075	T-089-6577-00316, Appendix A
	RHOB Condensers	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00	lb/ton	0.00	0.0000	Not Applicable
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton	0.00	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SSM #089-21207-00316 and SPM #089-22044-00316
CHANGE IN EMISSION RATES FROM PROCESS SOURCES
LEAD
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Annual Production/ Throughput Change	Units (tons)	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	386,310	hot metal	0.000126	lb/ton	98.10%	0.000002	0.0005	0.0001	July 25, 2007 Modification Request
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	0.000126	lb/ton	99.00%	0.00000126	0.0002	0.0001	July 25, 2007 Modification Request
	Casthouse Fugitives	772,620	hot metal	0.0000216	lb/ton	95.00%	0.00000108	0.0004	0.0001	July 25, 2007 Modification Request
	Coke Transfer Station	296,686	coke	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Stockhouse Coke Baghouse	296,686	coke	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Stockhouse Pellet Baghouse	1,295,275	pellet	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Slag Pit Operations	81,527	slag	0.0000036	lb/ton		0.0000036	0.0001	0.0000	T-089-6577-00316, Appendix A
	Slag Granulator Operations	146,341	slag	0.000001	lb/ton		0.000001	0.0001	0.0000	T-089-6577-00316, Appendix A
PCI	Coal Transfer Baghouse A	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Storage Baghouse C	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Pulverizer Baghouse D	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Pulverizer Baghouse E	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Storage Baghouse F	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Storage Baghouse G	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Coal Unloading	373,155	coal	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
Lime Plant	Silo Baghouses	50,335	lime	0.000425	lb/ton	98.60%	0.00000595	0.0001	0.0000	T-089-6577-00316, Appendix A
	No. 1 Kiln Baghouse	50,335	lime	0.007571	lb/ton	99.20%	0.000060568	0.0015	0.0003	T-089-6577-00316, Appendix A
	No. 2 Kiln Baghouse	50,335	lime	0.007571	lb/ton	99.20%	0.000060568	0.0015	0.0003	T-089-6577-00316, Appendix A
	Micro-Pulse Baghouse (2)	50,335	lime	0.00	lb/ton	98.00%	0.000000	0.0000	0.0000	Not Applicable
	Truck Loadout Baghouse	50,335	lime	0.000425	lb/ton	99.80%	0.000001	0.0000	0.0000	Not Applicable
No. 2 BOF	10 Furnace Stack	0	molten steel	0.0275	lb/ton	99.60%	0.000110	0.0000	0.0000	July 25, 2007 Modification Request
	20 Furnace Stack	0	molten steel	0.0275	lb/ton	99.60%	0.000110	0.0000	0.0000	July 25, 2007 Modification Request
	Caster Roof Monitor	0	slabs	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Ladle Metallurgy Station	0	molten steel	0.0006636	lb/ton	99.40%	0.000004	0.0000	0.0000	T-089-6577-00316, Appendix A
	Secondary, Ventilation System Scrubber	0	molten steel	0.00065	lb/ton	80.00%	0.00013	0.0000	0.0000	July 25, 2007 Modification Request
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	0.0000627	lb/ton	97.00%	0.00000188	0.0000	0.0000	T-089-6577-00316, Appendix A
	Truck and Ladle Hopper Baghouse	0	flux	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Flux Storage and Batch Baghouse	0	flux	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Roof Monitor	0	molten steel	0.0000772	lb/ton	70.00%	0.000023	0.0000	0.0000	T-089-6577-00316, Appendix A
No. 4 BOF	Scrubber	908,965	molten steel	0.1530	lb/ton	98.70%	0.001989	0.9040	0.2064	July 25, 2007 Modification Request
	Secondary Vent System Baghouse	908,965	molten steel	0.002450	lb/ton	97.80%	0.000054	0.0245	0.0056	July 25, 2007 Modification Request
	Reladling and Desulfurization Baghouse North	386,310	hot metal	0.0000627	lb/ton	98.50%	0.00000094	0.0002	0.0000	T-089-6577-00316, Appendix A
	Reladling and Desulfurization Baghouse South	386,310	hot metal	0.0000627	lb/ton	98.50%	0.00000094	0.0002	0.0000	T-089-6577-00316, Appendix A
	Roof Monitor	908,965	molten steel	0.000127	lb/ton	70.00%	0.000038	0.0173	0.0040	T-089-6577-00316, Appendix A
	Furnace Additives Bin Loading	58,829	lime alloys	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	Torch Cut	908,965	molten steel	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable
	RHOB Condensers	908,965	molten steel	0.0000322	lb/ton		0.000032	0.0146	0.0033	Not Applicable
	RHOB Material Handling	908,965	molten steel	0.00003	lb/ton	98.00%	0.0000006	0.0003	0.0001	T-089-6577-00316, Appendix A
	Furnace Additive Hopper House	58,829	lime alloys	0.00	lb/ton		0.000000	0.0000	0.0000	Not Applicable

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
PM_{10}
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	7.60	lb/mmcf			1.836	0.4191	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	4.51	lb/mmcf			33.048	7.5452	T-089-6577-00316, Appendix A
						Total Stoves		34.883	7.9643	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf			0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf			0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	7.60	lb/mmcf			0.060	0.0136	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	4.71	lb/mmcf			66.133	15.0989	T-089-6577-00316, Appendix A
						Total Boiler House		66.193	15.1125	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	0.0608	lb/mmcf		0.0608	0.004	0.0009	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	0.0608	lb/mmcf		0.0608	0.004	0.0009	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
PARTICULATE MATTER
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Controlled Emission Factor	Annual Change in Emissions		Source of Emission Factor
								(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	1.90	lb/mmcf		1.90	0.459	0.1048	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	0.68	lb/mmcf		0.68	4.983	1.1376	T-089-6577-00316, Appendix A
						Total Stoves		5.442	1.242	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf		1.90	0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	1.90	lb/mmcf		1.90	0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	1.90	lb/mmcf		1.90	0.015	0.0034	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	0.68	lb/mmcf		0.68	9.548	2.1799	T-089-6577-00316, Appendix A
						Total Boiler House		9.563	2.183	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	1.90	lb/mmcf	99.90%	0.0019	0.000	0.0000	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	1.90	lb/mmcf	99.90%	0.0019	0.000	0.0000	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
SULFUR DIOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	0.60	lb/mmcf		0.145	0.0331	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	14.70	lb/mmcf		107.717	24.5929	T-089-6577-00316, Appendix A
						Total Stoves	107.862	24.626	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	0.60	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	0.60	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	0.60	lb/mmcf		0.005	0.0011	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	14.70	lb/mmcf		206.403	47.1239	T-089-6577-00316, Appendix A
						Total Boiler House	206.407	47.125	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	0.60	lb/mmcf		0.037	0.0085	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	0.60	lb/mmcf		0.037	0.0085	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
CARBON MONOXIDE
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	84.00	lb/mmcf		20.288	4.6319	AP-42
	Stoves (BFG)	14,655.4	mmcf	579.50	lb/mmcf		4,246	969	2005 Stack Test
						Total Stoves	4,267	974	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	84.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	84.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	84.00	lb/mmcf		0.658	0.1502	AP-42
	Boiler House (BFG)	28,082.0	mmcf	13.70	lb/mmcf		192.362	43.9182	AIRS
						Total Boiler House	193.020	44.068	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	84.00	lb/mmcf		5.187	1.1842	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	84.00	lb/mmcf		5.187	1.1842	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
NITROGEN OXIDES
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	104.00	lb/mmcf		25.118	5.7347	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	23.00	lb/mmcf		168.537	38.4787	T-089-6577-00316, Appendix A
						Total Stoves	193.655	44.213	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	100.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	100.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	104.00	lb/mmcf		0.815	0.1860	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	23.00	lb/mmcf		322.943	73.7313	T-089-6577-00316, Appendix A
						Total Boiler House	323.758	73.917	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	104.00	lb/mmcf		6.422	1.4662	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	104.00	lb/mmcf		6.422	1.4662	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
VOC
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	5.50	lb/mmcf		1.328	0.3033	T-089-6577-00316, Appendix A
	Stoves (BFG)	14,655.4	mmcf	0.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
						Total Stoves	1.328	0.303	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	5.50	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	5.50	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	5.50	lb/mmcf		0.043	0.0098	T-089-6577-00316, Appendix A
	Boiler House (BFG)	28,082.0	mmcf	0.00	lb/mmcf		0.000	0.0000	T-089-6577-00316, Appendix A
						Total Boiler House	0.043	0.010	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	5.50	lb/mmcf		0.340	0.0775	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	5.50	lb/mmcf		0.340	0.0775	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CHANGE IN EMISSION RATES FROM COMBUSTION SOURCES
LEAD
(All Additional Hot Metal Through No. 4 BOF)

Emission Unit	Emission Location	Throughput Change	Units	Emission Factor	Units	Control Efficiency	Annual Change in Emissions		Source of Emission Factor
							(tons/yr)	(lbs/hr)	
Blast Furnace No. 7	Stoves (NG)	483.0	mmcf	0.00046	lb/mmcf		0.00011	0.00003	July 25, 2007 Modification Request
	Stoves (BFG)	14,655.4	mmcf	0.0000667	lb/mmcf		0.00049	0.00011	July 25, 2007 Modification Request
						Total Stoves	0.00060	0.00014	
No. 2 BOF	10 Furnace Stack Ignitor (NG)	0.0	mmcf	0.00046	lb/mmcf		0.00000	0.00000	AP-42
	20 Furnace Stack Ignitor (NG)	0.0	mmcf	0.00046	lb/mmcf		0.00000	0.00000	AIRS
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	0.00046	lb/mmcf		0.00000	0.00000	July 25, 2007 Modification Request
	Boiler House (BFG)	28,082.0	mmcf	0.0000667	lb/mmcf		0.00094	0.00021	July 25, 2007 Modification Request
						Total Boiler House	0.00094	0.00021	
Lime Plant	No. 1 Kiln (NG)	123.5	mmcf	0.00046	lb/mmcf		0.00003	0.00001	July 25, 2007 Modification Request
	No. 2 Kiln (NG)	123.5	mmcf	0.00046	lb/mmcf		0.00003	0.00001	July 25, 2007 Modification Request

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
CALCULATION OF ROAD PARTICULATE MATTER (TSP) EMISSIONS BY ROAD SEGMENT
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

PAVED ROADS

Road Segment ID	Material	Paved Road Segment Description	Silt (%)	Road Surface Silt Loading (g/m2)	Average Vehicle Weight (tons)	AP-42 TSP Emission Factor* (lb/VMT)	Additional Annual Traffic (VMT/yr)	Additional TSP Emissions (tons/yr)	Additional TSP Emissions (lbs/hr)
46P	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	1.3380	859	0.5749	0.1312
46P	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	1.3380	431	0.2884	0.0658
39P	No. 7 BF Slag	Rt. 76 Between Rt 56/71 and Rt. 74	7.4	0.24	22.5	0.4292	4,484	0.9623	0.2197
38P	No. 7 BF Slag	Rt. 56 bBetween Rt. 54 and Rt. 76	12.6	1.59	22.5	1.4490	2,405	1.7422	0.3978
7P	No. 7 BF Slag	Rt.71 S from Slag Quench Pits to Rt.71, Under Conveyor	3.4	25.76	20.0	7.4314	718	2.6692	0.6094
44P	No. 7 BF Slag	Rt. 71 Between New Coke Dump and West End of Rt. 75	15.4	1.98	20.0	1.4039	3,100	2.1763	0.4969
41P	No. 7 BF Slag	Rt.71 Between Rt.70 and New Coke Dump	14.3	0.12	20.0	0.2292	3,488	0.3998	0.0913
26P	No. 7 BF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.7931	3,034	1.2032	0.2747
24P	No. 7 BF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.4682	2,505	0.5863	0.1339
20P	No. 7 BF Slag	Rt.64 Between Propane Tank Farm Road and Rt.60	9.0	1.04	20.0	0.9213	7,864	3.6226	0.8271
19P	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.2292	6,097	0.6988	0.1595
99P	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Plant Gate	1.3	0.12	20.0	0.2292	2,363	0.2708	0.0618
34P	No. 4 BOF Scrap	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	1.0405	0	0.0000	0.0000
1P	No. 4 BOF Scrap	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	1.4595	0	0.0000	0.0000
10P	No. 4 BOF Scrap	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.4424	0	0.0000	0.0000
11P	No. 4 BOF Scrap	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	1.0733	0	0.0000	0.0000
30P	No. 4 BOF Scrap	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.6736	0	0.0000	0.0000
32P	No. 4 BOF Scrap	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.9734	0	0.0000	0.0000
64P	No. 4 BOF Scrap	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	1.7095	0	0.0000	0.0000
34P	No. 4 BOF Alloys	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	1.0405	0	0.0000	0.0000
1P	No. 4 BOF Alloys	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	1.4595	0	0.0000	0.0000
10P	No. 4 BOF Alloys	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.4424	0	0.0000	0.0000
11P	No. 4 BOF Alloys	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	1.0733	0	0.0000	0.0000
30P	No. 4 BOF Alloys	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.6736	0	0.0000	0.0000
32P	No. 4 BOF Alloys	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.9734	0	0.0000	0.0000
64P	No. 4 BOF Alloys	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	1.7095	0	0.0000	0.0000
26P	No. 4 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.7931	0	0.0000	0.0000
24P	No. 4 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.4682	0	0.0000	0.0000
20P	No. 4 BOF Slag	Rt.64 Between Propane Tank Farm Road and Rt.60	9.0	1.04	20.0	0.9213	0	0.0000	0.0000
19P	No. 4 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.2292	0	0.0000	0.0000
2P	No. 2 BOF Scrap	Rt.30	15.2	2.75	20.0	1.7346	2,000	1.7345	0.3960
8P	No. 2 BOF Scrap	Rt.21	17.1	0.85	20.0	0.8121	3,201	1.2997	0.2967
2P	No. 2 BOF Alloys	Rt.30	15.2	2.75	20.0	1.7346	567	0.4920	0.1123
8P	No. 2 BOF Alloys	Rt.21	17.1	0.85	20.0	0.8121	908	0.3687	0.0842
26P	No. 2 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.7931	2,054	0.8147	0.1860
24P	No. 2 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.4682	1,696	0.3970	0.0906
20P	No. 2 BOF Slag	Rt.64 Between Propane Tank Farm Road and Rt.60	9.0	1.04	20.0	0.9213	5,325	2.4529	0.5600
19P	No. 2 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.2292	4,128	0.4731	0.1080
33P	No. 2 BOF Lime	Rt. 56 Between Lime Plant North Entrance and Rt.41	20.6	4.64	30.0	4.4800	211	0.4732	0.1080
37P	No. 2 BOF Lime	Rt. 41 (Chisom Trail) Between Rt.56 and Rt. 43	12.8	0.12	30.0	0.4211	1,325	0.2789	0.0637
9P	No. 2 BOF Lime	Rt.43 Between Rt.40 and Rt.23 at Railroad Tracks	26.2	2.04	30.0	2.6305	299	0.3934	0.0898
8P	No. 2 BOF Lime	Rt.21	17.1	0.85	30.0	1.4919	748	0.5579	0.1274
							Paved Road Totals	24.9307	5.6919

*AP-42, 5th Edition, Equation (1), page 13.2.1-4 (October 2002)

TABLE 4-2B
ARCELOR MITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
ADDITION OF A FOURTH STOVE AT NO. 7 BLAST FURNACE
CONTEMPORANEOUS EMISSIONS CHANGES
ALL INCREASED HOT METAL USED AT NO. 4 BOF

Increases Attendant to Project	Criteria Air Pollutants Emission Rates (tons/yr)						
Facility	**PM**	**PM_{10}**	**SO_2**	**CO**	**NOx**	**VOC**	**Pb**
Blast Furnace No. 7	28.6841	56.9574	187.5734	4813.1185	204.4306	5.3091	0.0018
PCI	1.1212	1.1212	0.0000	0.0000	0.0000	0.0000	0.0000
Lime Plant	1.6960	1.6574	0.0741	111.0448	12.8440	0.6793	0.0033
No. 2 BOF	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
No. 4 BOF	100.1110	96.6143	4.5539	3767.6542	46.6481	4.0903	0.9610
No. 5 Boiler House	9.5628	66.1926	206.4074	193.0196	323.7575	0.0431	0.0009
Fugitive Emissions	25.3648	5.2986					
Shutdown of No. 2A Blooming Mill/21-Inch Bar Mill	(5.0224)	(4.9861)	(0.3698)	(52.0170)	(116.3382)	(34.4444)	(0.0533)
Project Emissions	**161.52**	**222.86**	**398.24**	**8832.82**	**471.34**	**(24.32)**	**0.91**

Contemporaneous and Creditable Changes			Criteria Air Pollutants Emission Rates (tons/yr)						
Facility	**Shutdown/ Modification Year**	**Startup Year**	**PM**	**PM10**	**SO2**	**CO**	**NOx**	**VOC**	**Pb**
No. 4 AC Station	1999		(605.80)	(605.80)	(1,355.50)	(202.50)	(3,284.00)	(20.20)	(0.36)
80-Inch No. 4 WBF Project	2001		(0.14)	(0.14)	(0.01)	1.08	(51.74)	(0.10)	
EAF Vacuum Degasser		2001	1.40	1.40	0.10	25.10	18.20	1.00	
No. 6 CGL		2001	6.10	6.10	0.50	5.43			
Slag Pits (curtailment)	2002		(402.98)	(197.00)	(287.04)	(42.71)	(12.32)	(1.16)	
Slag Granulation		2002	322.44	155.23	50.66	32.93	5.07	0.51	
Slag Pits (continued operation)*		2002	14.91	10.27	191.48	21.86	8.22	0.78	1.19E-03
EAF DRI		2002	8.68	5.84					
Contemporaneous and Creditable Emissions Changes			**(655.39)**	**(624.10)**	**(1,399.81)**	**(158.81)**	**(3,316.57)**	**(19.17)**	**(0.36)**
Net Emissions Changes			**(493.88)**	**(401.25)**	**(1,001.57)**	**8,674.01**	**(2,845.23)**	**(43.50)**	**0.55**

Project	Description
No. 4 AC Station	Shutdown in April 1999
80-Inch No. 4 WBF Project	Shutdown of two pusher furnaces and installation of No. 4 Walking Beam Furnace.
EAF Vacuum Degasser	Construction permit issued in March 1999.
No. 6 Continuous Coating Line	Construction permit issued in May 1999.
Slag Granulation/Pelletization	Installation reduced emissions by cooling and processing slag currently handled in the slag pits.
EAF Direct Reduced Iron System	Installation of system to handle Direct Reduced Iron at No. 1 EAF.

* The PTE for Slag Pits (continued operation) in 2002 has been adjusted based on the new slag throughput rate limit of 662,550 tons/yr.

Proposed Slag Pits Throughput (tons/yr)	**662,550**		**PM**	**PM10**	**SO2**	**CO**	**NOx**	**VOC**	**Pb**
Emission Factor (lbs/ton)			0.045	0.031	0.578	0.066	0.0248	0.0023	3.60E-06
PTE of Slag Pits (tons/yr)			14.91	10.27	191.48	21.86	8.22	0.78	1.19E-03

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
NET EMISSIONS CHANGES COMPARED TO NET SIGNIFICANT EMISSIONS at NO. 4 BOF

	Criteria Air Pollutants Emission Rates (tons/yr)						
	PM	**PM_{10}**	**SO_2**	**CO**	**NOx**	**VOC**	**Pb**
Net Emissions	161.52	222.86	398.24	8,832.82	471.34	(24.32)	0.91
Net Contemporaneous Emissions	(655.39)	(624.10)	(1,399.81)	(158.81)	(3,316.57)	(19.17)	(0.36)
Net Project Emissions Change	(493.88)	(401.25)	(1,001.57)	8,674.01	(2,845.23)	(43.50)	0.55
Net Significant Threshold	25	15	40	100	40	25	0.6

SPM #089-18491-00316
SUMMARY OF FUGITIVE DUST EMISSIONS
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

PAVED ROADS

Road Segment ID	Area Source ID	Material Silt	(%)	Road Surface Silt Loading (g/m^2)	Average Vehicle Weight (tons)	AP-42 PM_{10} Emission Factor* (lb/VMT)	Additional Annual Traffic (VMT/yr)	Additional PM_{10} Emissions (tons/yr)	Additional PM_{10} Emissions (lbs/hr)
46P	63	No. 7 BF Slag	16.3	1.40	22.5	0.2611	859	0.1122	0.0256
46P	63	No. 7 BF Slag	16.3	1.40	22.5	0.2611	431	0.0563	0.0128
39P	56	No. 7 BF Slag	7.4	0.24	22.5	0.0838	4,484	0.1878	0.0429
38P	40	No. 7 BF Slag	12.6	1.59	22.5	0.2827	2,405	0.3399	0.0776
7P	68	No. 7 BF Slag	3.4	25.76	20.0	1.4500	718	0.5208	0.1189
44P	69	No. 7 BF Slag	15.4	1.98	20.0	0.2739	3,100	0.4246	0.0969
41P	65	No. 7 BF Slag	14.3	0.12	20.0	0.0447	3,488	0.0780	0.0178
26P	39	No. 7 BF Slag	34.9	0.82	20.0	0.1548	3,034	0.2348	0.0536
24P	39	No. 7 BF Slag	13.8	0.37	20.0	0.0914	2,505	0.1144	0.0261
20P	39	No. 7 BF Slag	9.0	1.04	20.0	0.1798	7,864	0.7069	0.1614
19P	27	No. 7 BF Slag	1.3	0.12	20.0	0.0447	6,097	0.1363	0.0311
99P	8	No. 7 BF Slag	1.3	0.12	20.0	0.0447	2,363	0.0528	0.0121
34P	8	No. 4 BOF Scrap	18.4	1.25	20.0	0.2030	0	0.0000	0.0000
1P	12	No. 4 BOF Scrap	20.4	2.11	20.0	0.2848	0	0.0000	0.0000
10P	12	No. 4 BOF Scrap	13.7	0.34	20.0	0.0863	0	0.0000	0.0000
11P	24	No. 4 BOF Scrap	28.0	1.31	20.0	0.2094	0	0.0000	0.0000
30P	31	No. 4 BOF Scrap	10.7	0.64	20.0	0.1314	0	0.0000	0.0000
32P	31	No. 4 BOF Scrap	12.6	1.13	20.0	0.1899	0	0.0000	0.0000
64P	44	No. 4 BOF Scrap	13.3	2.69	20.0	0.3336	0	0.0000	0.0000
34P	8	No. 4 BOF Alloys	18.4	1.25	20.0	0.2030	0	0.0000	0.0000
1P	12	No. 4 BOF Alloys	20.4	2.11	20.0	0.2848	0	0.0000	0.0000
10P	12	No. 4 BOF Alloys	13.7	0.34	20.0	0.0863	0	0.0000	0.0000
11P	24	No. 4 BOF Alloys	28.0	1.31	20.0	0.2094	0	0.0000	0.0000
30P	31	No. 4 BOF Alloys	10.7	0.64	20.0	0.1314	0	0.0000	0.0000
32P	31	No. 4 BOF Alloys	12.6	1.13	20.0	0.1899	0	0.0000	0.0000
64P	44	No. 4 BOF Alloys	13.3	2.69	20.0	0.3336	0	0.0000	0.0000
26P	39	No. 4 BOF Slag	34.9	0.82	20.0	0.1548	0	0.0000	0.0000
24P	39	No. 4 BOF Slag	13.8	0.37	20.0	0.0914	0	0.0000	0.0000
20P	39	No. 4 BOF Slag	9.0	1.04	20.0	0.1798	0	0.0000	0.0000
19P	27	No. 4 BOF Slag	1.3	0.12	20.0	0.0447	0	0.0000	0.0000
2P	7	No. 2 BOF Scrap	15.2	2.75	20.0	0.3385	2,000	0.3384	0.0773
8P	11	No. 2 BOF Scrap	17.1	0.85	20.0	0.1585	3,201	0.2536	0.0579
2P	7	No. 2 BOF Alloys	15.2	2.75	20.0	0.3385	567	0.0960	0.0219
8P	11	No. 2 BOF Alloys	17.1	0.85	20.0	0.1585	908	0.0719	0.0164
26P	39	No. 2 BOF Slag	34.9	0.82	20.0	0.1548	2,054	0.1590	0.0363
24P	39	No. 2 BOF Slag	13.8	0.37	20.0	0.0914	1,696	0.0775	0.0177
20P	39	No. 2 BOF Slag	9.0	1.04	20.0	0.1798	5,325	0.4786	0.1093
19P	27	No. 2 BOF Slag	1.3	0.12	20.0	0.0447	4,128	0.0923	0.0211
33P	37	No. 2 BOF Lime	20.6	4.64	30.0	0.8742	211	0.0923	0.0211
37P	30,24	No. 2 BOF Lime	12.8	0.12	30.0	0.0822	1,325	0.0544	0.0124
9P	22	No. 2 BOF Lime	26.2	2.04	30.0	0.5133	299	0.0768	0.0175
8P	11	No. 2 BOF Lime	17.1	0.85	30.0	0.2911	748	0.1089	0.0249
							Paved Road Totals	4.8645	1.1106

MATERIAL HANDLING

Material Handling ID	Area Source ID	Material		Additional PM_{10} Emissions (tons/yr)	Additional PM_{10} Emissions (lbs/hr)
1M	30	Self-fluxing Pellets		0.0720	0.0164
2M		Limestone			
3M	37	Limestone		0.0182	0.0042
4M	38	Steelmaking Slag		0.1761	0.0402
5M	64	No. 7 BF Slag		0.1117	0.0255
6M	67	No. 7 BF Slag		0.0561	0.0128
Additional Material Handling Emissions				0.4340	0.0991

	(tons/yr)	(lbs/hr)
Total Paved Roads and Material Handling Emissions	5.2986	1.2097

SPM #089-18491-00316
CALCULATION OF ADDITIONAL VEHICLE MILES TRAVELED FOR TRUCK TRANSPORTATION OF MATERIALS
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF

Road Segment ID	Material	Additional Material Required (tons/yr)	Percent Hauled by Truck	Additional Material Hauled by Truck (tons/yr)	Net Weight (tons/vehicle)	Empty Vehicle Weight [Tare Weight] (tons/vehicle)	Average Vehicle Weight* (tons/vehicle)	No. of Additional Trucks per Year	Road Length (mi)	Increase in VMT** per Year	Remarks
46P	No. 7 BF Slag	189,040	100%	189,040	25	10	22.5	7,562	0.057	859	From Slag Granulator / Slag Pit to Storage
46P	No. 7 BF Slag	94,520	100%	94,520	25	10	22.5	3,781	0.057	431	Trucked to Dock 6 for water transportation
39P	No. 7 BF Slag	94,520	100%	94,520	25	10	22.5	3,781	0.593	4,484	
38P	No. 7 BF Slag	94,520	100%	94,520	25	10	22.5	3,781	0.318	2,405	
7P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.076	718	Sent offsite by truck only
44P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.328	3,100	
41P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.369	3,488	
26P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.321	3,034	
24P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.265	2,505	
20P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.832	7,864	
19P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.645	6,097	
99P	No. 7 BF Slag	94,520	100%	94,520	20	10	20	4,726	0.250	2,363	
34P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.239	0	Remainder of scrap transported by train
1P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.206	0	
10P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.205	0	
11P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.466	0	
30P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.361	0	
32P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.318	0	
64P	No. 4 BOF Scrap	0	30%	0	20	10	20	0	0.240	0	
34P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.239	0	
1P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.206	0	
10P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.205	0	
11P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.466	0	
30P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.361	0	
32P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.318	0	
64P	No. 4 BOF Alloys	0	100%	0	20	10	20	0	0.240	0	
26P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.321	0	Shipped offsite by truck from slag processing area adjacent to No. 4 BOF Shop.
24P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.265	0	
20P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.832	0	
19P	No. 4 BOF Slag	0	100%	0	20	10	20	0	0.645	0	
2P	No. 2 BOF Scrap	120,000	55%	66,000	20	10	20	3,300	0.303	2,000	Remainder of scrap transported by train
8P	No. 2 BOF Scrap	120,000	55%	66,000	20	10	20	3,300	0.485	3,201	
2P	No. 2 BOF Alloys	18,720	100%	18,720	20	10	20	936	0.303	567	
8P	No. 2 BOF Alloys	18,720	100%	18,720	20	10	20	936	0.485	908	
26P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.321	2,054	Transported by rail from No. 2 BOF to slag processing area. Shipped offsite by truck from slag processing area adjacent to No. 4 BOF Shop.
24P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.265	1,696	
20P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.832	5,325	
19P	No. 2 BOF Slag	64,000	100%	64,000	20	10	20	3,200	0.645	4,128	
33P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.137	211	Transported by truck from Lime Plant. BOF No. 4 receives lime directly from Lime Plant by conveyor.
37P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.859	1,325	
9P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.194	299	
8P	No. 2 BOF Lime	30,840	100%	30,840	40	10	30	771	0.485	748	

Percent of Blast Furnace No. 7 slag sent by truck to Dock No. 6 for offsite water transportation: 50%
Percent of Blast Furnace No. 7 slag sent to offsite sales by truck: 50%

*Average Vehicle Weight = [(Net Weight+Tare Weight)+Tare Weight]/2
**Vehicle Miles Traveled. Assumes each truck makes one pass empty and one pass loaded.

SPM #089-18491-00316
CALCULATION OF ROAD FUGITIVE DUST EMISSIONS BY ROAD SEGMENT
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

PAVED ROADS

Road Segment ID	Area Source ID	Material	Paved Road Segment Description	Silt (%)	Road Surface Silt Loading (g/m^2)	Average Vehicle Weight (tons)	AP-42 PM_{10} Emission Factor* (lb/VMT)	Additional Annual Traffic (VMT/yr)	Additional PM_{10} Emissions (tons/yr)
46P	63	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	0.2611	859	0.1122
46P	63	No. 7 BF Slag	Rt. 71 Between Rt. 75 and Rt. 76 by 7BF Stockhouse Control Center	16.3	1.40	22.5	0.2611	431	0.0563
39P	56	No. 7 BF Slag	Rt. 76 Between Rt 56/71 and Rt. 74	7.4	0.24	22.5	0.0838	4,484	0.1878
38P	40	No. 7 BF Slag	Rt. 56 Between Rt. 54 and Rt. 76	12.6	1.59	22.5	0.2827	2,405	0.3399
7P	68	No. 7 BF Slag	Rt.71 S from Slag Quench Pits to Rt.71, Under Conveyor	3.4	25.76	20.0	1.4500	718	0.5208
44P	69	No. 7 BF Slag	Rt. 71 Between New Coke Dump and West End of Rt. 75	15.4	1.98	20.0	0.2739	3,100	0.4246
41P	65	No. 7 BF Slag	Rt.71 Between Rt.70 and New Coke Dump	14.3	0.12	20.0	0.0447	3,488	0.0780
26P	39	No. 7 BF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.1548	3,034	0.2348
24P	39	No. 7 BF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.0914	2,505	0.1144
20P	39	No. 7 BF Slag	Rt.64 Between Propane Tank Farm Rd and Rt.60	9.0	1.04	20.0	0.1798	7,864	0.7069
19P	27	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Road	1.3	0.12	20.0	0.0447	6,097	0.1363
99P	8	No. 7 BF Slag	Rt.64 Between Lot 40 Gate and Plant Gate	1.3	0.12	20.0	0.0447	2,363	0.0528
34P	8	No. 4 BOF Scrap	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	0.2030	0	0.0000
1P	12	No. 4 BOF Scrap	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	0.2848	0	0.0000
10P	12	No. 4 BOF Scrap	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.0863	0	0.0000
11P	24	No. 4 BOF Scrap	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	0.2094	0	0.0000
30P	31	No. 4 BOF Scrap	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.1314	0	0.0000
32P	31	No. 4 BOF Scrap	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.1899	0	0.0000
64P	44	No. 4 BOF Scrap	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	0.3336	0	0.0000
34P	8	No. 4 BOF Alloys	Rt.40 Northbound and Southbound Lanes Between South Gate and Truck Middle Gate	18.4	1.25	20.0	0.2030	0	0.0000
1P	12	No. 4 BOF Alloys	Rt.40 Southbound Lanes Between Rt.60 and Truck Middle Gate	20.4	2.11	20.0	0.2848	0	0.0000
10P	12	No. 4 BOF Alloys	Rt.40 Between Rt.60 and Rt.43	13.7	0.34	20.0	0.0863	0	0.0000
11P	24	No. 4 BOF Alloys	Rt.40 Between Rt.43 and Rt.50	28.0	1.31	20.0	0.2094	0	0.0000
30P	31	No. 4 BOF Alloys	Rt.50 and Between Rt.40 and Cleaning Services	10.7	0.64	20.0	0.1314	0	0.0000
32P	31	No. 4 BOF Alloys	Rt.56 Between Rt.50/52 and Lime Plant North Entrance	12.6	1.13	20.0	0.1899	0	0.0000
64P	44	No. 4 BOF Alloys	Rt.63 Between Rt.46 and Rt.56	13.3	2.69	20.0	0.3336	0	0.0000
26P	39	No. 4 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.1548	0	0.0000
24P	39	No. 4 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.0914	0	0.0000
20P	39	No. 4 BOF Slag	Rt.64 Propane Tank Farm Rd to Rt.60	9.0	1.04	20.0	0.1798	0	0.0000
19P	27	No. 4 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Rd	1.3	0.12	20.0	0.0447	0	0.0000
2P	7	No. 2 BOF Scrap	Rt.30	15.2	2.75	20.0	0.3385	2,000	0.3384
8P	11	No. 2 BOF Scrap	Rt.21	17.1	0.85	20.0	0.1585	3,201	0.2536
2P	7	No. 2 BOF Alloys	Rt.30	15.2	2.75	20.0	0.3385	567	0.0960
8P	11	No. 2 BOF Alloys	Rt.21	17.1	0.85	20.0	0.1585	908	0.0719
26P	39	No. 2 BOF Slag	Rt.70 Between Rt.63 and Rt.71	34.9	0.82	20.0	0.1548	2,054	0.1590
24P	39	No. 2 BOF Slag	Rt.63 Between Rt.40 and Rt.60	13.8	0.37	20.0	0.0914	1,696	0.0775
20P	39	No. 2 BOF Slag	Rt.64 Between Propane Tank Farm Rd and Rt.60	9.0	1.04	20.0	0.1798	5,325	0.4786
19P	27	No. 2 BOF Slag	Rt.64 Between Lot 40 Gate and Propane Tank Farm Rd	1.3	0.12	20.0	0.0447	4,128	0.0923
33P	37	No. 2 BOF Lime	Rt. 56 Lime Plant North Entrance to Rt.41	20.6	4.64	30.0	0.8742	211	0.0923
37P	30,24	No. 2 BOF Lime	Rt. 41 (Chisom Trail) Between Rt.56 and Rt. 43	12.8	0.12	30.0	0.0822	1,325	0.0544
9P	22	No. 2 BOF Lime	Rt.43 Between Rt.40 and Rt.23 at Railroad Tracks	26.2	2.04	30.0	0.5133	299	0.0768
8P	11	No. 2 BOF Lime	Rt.21	17.1	0.85	30.0	0.2911	748	0.1089
								Paved Road Totals	4.8645

*AP-42, 5th Edition, Equation (1), page 13.2.1-4 (October 2002)

SPM #089-18491-00316
CALCULATION OF ROAD FUGITIVE DUST EMISSIONS BY AREA SOURCE
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

Road Segment ID	Area Source ID	Material	PM_{10} Emissions (tons/yr)	PM_{10} Emissions (lbs/hr)	Length of Area Source Side (m)	Length of Area Source Side (ft)	Area of Area Source (ft^2)	Emission Rate ($lb/hr/ft^2$)
2P	7	No. 2 BOF Scrap	0.3384	0.0773	500	1,640.4	2,690,912	3.6858E-08
2P	7	No. 2 BOF Alloys	0.0960	0.0219				
34P	8	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	4.4839E-09
39P	8	No. 4 BOF Alloys	0.0000	0.0000				
99P	8	No. 7 BF Slag	0.0528	0.0121				
8P	11	No. 2 BOF Lime	0.1089	0.0249	500	1,640.4	2,690,912	3.6856E-08
8P	11	No. 2 BOF Scrap	0.2536	0.0579				
8P	11	No. 2 BOF Alloys	0.0719	0.0164				
10P	12	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
1P	12	No. 4 BOF Scrap	0.0000	0.0000				
10P	12	No. 4 BOF Alloys	0.0000	0.0000				
1P	12	No. 4 BOF Alloys	0.0000	0.0000				
9P	22	No. 2 BOF Lime	0.0768	0.0175	250	820.2	672,728	2.6054E-08
11P	24	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
11P	24	No. 4 BOF Alloys	0.0000	0.0000				
19P	27	No. 2 BOF Slag	0.0923	0.0211	500	1,640.4	2,690,912	1.9401E-08
19P	27	No. 4 BOF Slag	0.0000	0.0000				
19P	27	No. 7 BF Slag	0.1363	0.0311				
37P	30	No. 2 BOF Lime	0.0544	0.0124	500	1,640.4	2,690,912	4.6175E-09
30P	31	No. 4 BOF Scrap	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
32P	31	No. 4 BOF Scrap	0.0000	0.0000				
30P	31	No. 4 BOF Alloys	0.0000	0.0000				
32P	31	No. 4 BOF Alloys	0.0000	0.0000				
33P	37	No. 2 BOF Lime	0.0923	0.0211	250	820.2	672,728	3.1336E-08
20P	39	No. 2 BOF Slag	0.4786	0.1093	750	2,460.6	6,054,552	6.6786E-08
20P	39	No. 4 BOF Slag	0.0000	0.0000				
20P	39	No. 7 BF Slag	0.7069	0.1614				
24P	39	No. 2 BOF Slag	0.0775	0.0177				
24P	39	No. 4 BOF Slag	0.0000	0.0000				
24P	39	No. 7 BF Slag	0.1144	0.0261				
26P	39	No. 2 BOF Slag	0.1590	0.0363				
26P	39	No. 4 BOF Slag	0.0000	0.0000				
26P	39	No. 7 BF Slag	0.2348	0.0536				
38P	40	No. 7 BF Slag	0.3399	0.0776	500	1,640.4	2,690,912	2.8842E-08
64P	44	No. 4 BOF Scrap	0.0000	0.0000	250	820.2	672,728	0.0000E+00
64P	44	No. 4 BOF Alloys	0.0000	0.0000				
39P	56	No. 7 BF Slag	0.1878	0.0429	500	1,640.4	2,690,912	1.5931E-08
46P	63	No. 7 BF Slag	0.1122	0.0256	250	820.2	672,728	5.7163E-08
46P	63	No. 7 BF Slag	0.0563	0.0128				
41P	65	No. 7 BF Slag	0.0780	0.0178	250	820.2	672,728	2.6473E-08
7P	68	No. 7 BF Slag	0.5208	0.1189	250	820.2	672,728	1.7675E-07
44P	69	No. 7 BF Slag	0.4246	0.0969	250	820.2	672,728	1.4411E-07

SPM #089-18491-00316
SUMMARY OF MATERIAL HANDLING EMISSIONS BY AREA SOURCE
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

Material Handling ID	Area Source ID	Material	Additional PM_{10} Emissions (tons/yr)	Additional PM_{10} Emissions (lbs/hr)	Length of Area Source Side (m)	Length of Area Source Side (ft)	Area of Area Source (ft^2)	Emission Rate ($lb/hr/ft^2$)
1M	30	Self-fluxing Pellets	0.0538	0.0123	500	1,640.4	2,690,912	6.1110E-09
2M		Limestone	0.0182	0.0042				
3M	37	Limestone	0.0182	0.0042	250	820.2	672,728	6.1689E-09
4M	38	Steelmaking Slag	0.1761	0.0402	500	1,640.4	2,690,912	1.4939E-08
5M	64	No. 7 BF Slag	0.1117	0.0255	250	820.2	672,728	3.7905E-08
6M	67	No. 7 BF Slag	0.0561	0.0128	250	820.2	672,728	1.9027E-08
Additional Material Handling Emissions			0.4340	0.0991				

SPM #089-18491-00316
CALCULATION OF FUGITIVE DUST EMISSIONS BY AREA SOURCES
ALL ADDITIONAL HOT METAL PROCESSED THROUGH NO. 4 BOF SHOP

Area Source ID	Road PM_{10} Emissions (lbs/hr)	Material Handling PM_{10} Emissions (lbs/hr)	Total PM_{10} Emissions (lbs/hr)	Length of Area Source Side (m)	Length of Area Source Side (ft)	Area of Area Source (ft^2)	Emission Rate ($lb/hr/ft^2$)
7	0.0992	0.0000	0.0992	500	1,640.4	2,690,912	3.6858E-08
8	0.0121	0.0000	0.0121	500	1,640.4	2,690,912	4.4839E-09
11	0.0992	0.0000	0.0992	500	1,640.4	2,690,912	3.6856E-08
12	0.0000	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
22	0.0175	0.0000	0.0175	250	820.2	672,728	2.6054E-08
24	0.0000	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
27	0.0522	0.0000	0.0522	500	1,640.4	2,690,912	1.9401E-08
30	0.0124	0.0164	0.0289	500	1,640.4	2,690,912	1.0728E-08
31	0.0000	0.0000	0.0000	500	1,640.4	2,690,912	0.0000E+00
37	0.0211	0.0042	0.0252	250	820.2	672,728	3.7505E-08
38	0.0000	0.0402	0.0402	500	1,640.4	2,690,912	1.4939E-08
39	0.4044	0.0000	0.4044	750	2,460.6	6,054,552	6.6786E-08
40	0.0776	0.0000	0.0776	500	1,640.4	2,690,912	2.8842E-08
44	0.0000	0.0000	0.0000	250	820.2	672,728	0.0000E+00
56	0.0429	0.0000	0.0429	500	1,640.4	2,690,912	1.5931E-08
63	0.0385	0.0000	0.0385	250	820.2	672,728	5.7163E-08
64	0.0000	0.0255	0.0255	250	820.2	672,728	3.7905E-08
65	0.0178	0.0000	0.0178	250	820.2	672,728	2.6473E-08
67	0.0000	0.0128	0.0128	250	820.2	672,728	1.9027E-08
68	0.1189	0.0000	0.1189	250	820.2	672,728	1.7675E-07
69	0.0969	0.0000	0.0969	250	820.2	672,728	1.4411E-07

Arcelor Mittal Indiana Harbor East
SPM #089-18491-00316
Blast Furnace No. 7 Stove Addition
Emission Increase
No. 7 Blast Furnace at 772,620 Tons Hot Metal Per Year

Emission Unit	Emission Location	Changes in Annual Emission Rates of Criteria Air Pollutants (tons/yr)						
		PM	PM10	SO2	CO	NOx	VOC	Pb
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	3.1790	4.3495	34.2657	108.1668	4.7902	1.7799	0.0005
	Casthouse Baghouse No. 2 (west)	1.6213	2.7889	34.2657	428.8041	4.7902	1.7799	0.0002
	Casthouse Fugitives	11.5893	8.1125	3.8631	4.6357	0.4636	0.3477	0.0004
	Coke Transfer Station	0.0297	0.0148	0.0000	0.0000	0.0000	0.0000	0.0000
	Stockhouse Coke Baghouse	0.1335	0.1187	0.0000	0.0000	0.0000	0.0000	0.0000
	Stockhouse Pellet Baghouse	0.3238	0.3238	0.0000	0.0000	0.0000	0.0000	0.0000
	Slag Pit Operations	6.3658	6.3658	7.3170	4.8292	0.7317	0.0732	0.0001
	Stoves (NG)	0.4589	1.8356	0.1449	20.2877	25.1181	1.3284	0.0001
	Stoves (BFG)	4.9828	33.0479	107.7170	4246.3950	168.5368	0.0000	0.0005
	Blast Furnace No. 7 Total	**28.6841**	**56.9574**	**187.5734**	**4813.1185**	**204.4306**	**5.3091**	**0.0018**
PCI	Coal Transfer Baghouse A	0.1045	0.1045	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Storage Baghouse C	0.1455	0.1455	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Pulverizer Baghouse D	0.1431	0.1431	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Pulverizer Baghouse E	0.1431	0.1431	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Storage Baghouse F	0.1526	0.1526	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Storage Baghouse G	0.1526	0.1526	0.0000	0.0000	0.0000	0.0000	0.0000
	Coal Unloading	0.2799	0.2799	0.0000	0.0000	0.0000	0.0000	0.0000
	PCI Total	**1.1212**	**1.1212**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
Lime Plant	Silo Baghouses	0.5530	0.5530	0.0000	0.0000	0.0000	0.0000	0.0001
	No. 1 Kiln Baghouse	0.3575	0.4000	0.0000	50.3354	0.0000	0.0000	0.0015
	No. 2 Kiln Baghouse	0.3575	0.4000	0.0000	50.3354	0.0000	0.0000	0.0015
	Micro-Pulse Baghouse (2)	0.1762	0.1762	0.0000	0.0000	0.0000	0.0000	0.0000
	Truck Loadout Baghouse	0.2517	0.1208	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 1 Kiln (NG)	0.0001	0.0038	0.0371	5.1870	6.422	0.3396	0.0000
	No. 2 Kiln (NG)	0.0001	0.0038	0.0371	5.1870	6.422	0.3396	0.0000
	Lime Plant Total	**1.6960**	**1.6574**	**0.0741**	**111.0448**	**12.8440**	**0.6793**	**0.0033**
No. 2 BOF	10 Furnace Stack	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	20 Furnace Stack	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	10 Furnace Stack (NG)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	20 Furnace Stack (NG)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Caster Roof Monitor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Ladle Metallurgy Station	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Gas Cleaning System	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Secondary, Ventilation System Scrubber	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Charging Aisle and Reladling Desulfurization Baghouse	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Truck and Ladle Hopper Baghouse	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Flux Storage and Batch Baghouse	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Roof Monitor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 2 BOF Total	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
No. 4 BOF	Scrubber	77.7165	72.4395	0.4545	3650.1387	36.3586	0.4545	0.9040
	Gas Cleaning System	0.0000	0.0000	0.0000	21.3607	0.0000	0.0000	0.0000
	Secondary Vent System Baghouse	4.0419	4.3029	0.4545	63.1730	9.0896	2.2724	0.0245
	Reladling and Desulfurization Baghouse North	0.9890	3.3319	1.8157	0.0000	0.4636	0.1932	0.0002
	Reladling and Desulfurization Baghouse South	0.9890	3.3319	1.8157	0.0000	0.4636	0.1932	0.0002
	Roof Monitor	13.6345	8.3170	0.0136	1.8952	0.2727	0.0682	0.0173
	Furnace Additives Bin Loading	0.0294	0.0294	0.0000	0.0000	0.0000	0.0000	0.0000
	Torch Cut	1.5907	0.9203	0.0000	0.0000	0.0000	0.9090	0.0000
	RHOB Condensers	0.1818	0.0909	0.0000	9.7259	0.0000	0.0000	0.0146
	RHOB Material Handling	0.9090	0.9090	0.0000	0.0000	0.0000	0.0000	0.0003
	RHOB Gas Cleaning System	0.0000	0.0000	0.0000	21.3607	0.0000	0.0000	0.0000
	Furnace Additive Hopper House	0.0294	2.9415	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 4 BOF Total	**100.1110**	**96.6143**	**4.5539**	**3767.6542**	**46.6481**	**4.0903**	**0.9610**
No. 5 Boiler House	Boiler House (NG)	0.0149	0.0595	0.0047	0.6579	0.8145	0.0431	0.0000
	Boiler House (BFG)	9.5479	66.1331	206.4027	192.3617	322.9430	0.0000	0.0009
	Boiler House (Mixed Gas)	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	No. 5 Boiler House Total	**9.5628**	**66.1926**	**206.4074**	**193.0196**	**323.7575**	**0.0431**	**0.0009**

ArcelorMittal Indiana Harbor East

SPM #089-18491-00316

Calculation of Change in Hours of Operation

Baghouses with PM10 Limits (lbs/hr)

Emission Location	Hours of Operation		Average Hours of Operation	Hours Per Year	Increase in Hours of Operation	Model Operation Hours
	1999	2000				
Casthouse No. 1	8,466	8,476	8,471.0	8,760	289.0	289.0
Casthouse No. 2	8,466	8,476	8,471.0	8,760	289.0	289.0
Coal Pulverizer Baghouse	8,466	8,476	8,471.0	8,760	289.0	289.0
Lime Plant	8,247	8,072	8,159.5	8,760	600.5	200.0
No. 4 BOF Secondary Vent System	8,497	8,298	8,397.5	8,760	362.5	362.5

ARCELORMITTAL INDIANA HARBOR EAST
SPM #089-18491-00316
Calculation of Annual Change in Production/Throughput Rate

Emission Unit	Emission Location	Annual Production/ Thruput Change	Units	Comments
Blast Furnace No. 7	Casthouse Baghouse No. 1 (east)	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Casthouse Baghouse No. 2 (west)	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Casthouse Baghouse No. 1 (east)	386,310	hot metal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on permitted increase in hot metal from No. 7 Blast Furnace.
	Casthouse Baghouse No. 2 (west)	386,310	hot metal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on permitted increase in hot metal from No. 7 Blast Furnace.
	Casthouse Fugitives	772,620	hot metal	Based on hot metal increase
	Coke Transfer Station	296,686	coke	Based on hot metal increase
	Stockhouse Coke Baghouse	296,686	coke	Based on hot metal increase
	Stockhouse Pellet Baghouse	1,295,275	pellet	Increase in IDEM public notice SPM
	Slag Granulation	146,341	slag	Based on minimum actual slag granulation ratio x hot metal increase.
	Slag Pit	81,527	slag	Based on minimum actual slag granulation ratio x hot metal increase.
PCI	Coal Transfer Baghouse A	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Storage Baghouse C	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Pulvurizer Baghouse D	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Coal Pulvurizer Baghouse E	289	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Coal Pulvurizer Baghouse D	373,155	coal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Pulvurizer Baghouse E	373,155	coal	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Storage Baghouse F	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Storage Baghouse G	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
	Coal Unloading	373,155	coal	Based on the difference of actual lbs coal per ton hot metal (after) and 320 lbs coal per ton hot metal (before).
Lime Plant	Silo Baghouses	200.0	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	No. 1 Kiln Baghouse	200.0	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	No. 2 Kiln Baghouse	200.0	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Silo Baghouses	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	No. 1 Kiln Baghouse	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	No. 2 Kiln Baghouse	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Micro-Pulse Baghouse (2)	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Truck Loadout Baghouse	50,335	lime	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
No. 2 BOF	10 Furnace Stack	0	molten steel	Total change in steel production divided between 10 Furnace and 20 Furnace Stacks.
	20 Furnace Stack	0	molten steel	Total change in steel production divided between 10 Furnace and 20 Furnace Stacks.
	Caster Fume Collection	0	slabs	Total change in steel production
	Ladle Metallurgy Station	0	molten steel	Total change in steel production
	Gas Cleaning System	0	molten steel	Total change in steel production
	Secondary, Ventilation System Scrubber	0	molten steel	Total change in steel production
	Charging Aisle and Reladling Desulfurization Baghouse	0	hot metal	Based on change in hot metal production
	Truck and Ladle Hopper Baghouse	0	flux	Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Flux Storage and Batch Baghouse	0	flux	Based on actual lbs lime per ton steel and the total amount of change in tons of steel produced.
	Roof Monitor	0	molten steel	Total change in steel production
No. 4 BOF	Scrubber	908,965	molten steel	Total change in steel production
	Gas Cleaning System	908,965	molten steel	Total change in steel production
	Secondary Vent System Baghouse	363	hours	Used for calculation of PM and PM10 emission rates. Based on the difference in the maximum hours of operation and the average hours of operation in 1999 and 2000.
	Secondary Vent System Baghouse	908,965	molten steel	Used for calculation of SO2, CO, NOx, VOC and Lead emission rates. Based on change in total change in steel production.
	Reladling and Desulfurization Baghouse North	386,310	hot metal	Based on change in hot metal production
	Reladling and Desulfurization Baghouse South	386,310	hot metal	Based on change in hot metal production
	Roof Monitor	908,965	molten steel	Total change in steel production
	Furnace Additives Bin Loading	58,829	lime alloys	Total change in steel production
	Torch Cut	908,965	molten steel	Total change in steel production
	RHOB Condensers	908,965	molten steel	Total change in steel production
	RHOB Material Handling	908,965	molten steel	Total change in steel production
	RHOB Gas Cleaning System	908,965	molten steel	Total change in steel production
	Furnace Additive Hopper House	58,829	lime alloys	Total change in steel production
Blast Furnace No. 7	Stoves (NG)	483	mmcf	Based on change in hot metal production in tons hot metal per year and maximum BFG combust/tons hot metal Jan 05-Apr 07
	Stoves (BFG)	14,655	mmcf	Based on change in hot metal production in tons hot metal per year and maximum BFG combust/tons hot metal Jan 05-Apr 07
No. 2 BOF	10 Furnace Stack (NG)	0.00	mmcf	Based on actual mmscf of natural gas per ton of steel produced multiplied by the change in steel production.
	20 Furnace Stack (NG)	0.00	mmcf	Based on actual mmscf of natural gas per ton of steel produced multiplied by the change in steel production.
No. 5 Boiler House	Boiler House (NG)	15.7	mmcf	Based on change in amount of NG consumed.
	Boiler House (BFG)	28,082	mmcf	Based on change in amount of BFG generated in mmcf/yr less BFG consumed at No. 7 BF.
Lime Plant	No. 1 Kiln (Residual Oil)	0.0000	10^3 gal	Revised on February 21, 2003
	No. 1 Kiln (NG)	123.5000	mmcf	IDEM Public Noticed SSM
	No. 2 Kiln (Residual Oil)	0.0000	10^3 gal	Revised on February 21, 2003
	No. 2 Kiln (NG)	123.5000	mmcf	IDEM Public Noticed SSM

ArcelorMittal Indiana Harbor East

SPM #089-18491-00316

Summary of Calculations Used to Estimate Change in Annual Production/Throughput Rate

All Hot Metal Increase Through No. 4 BOF Shop

Calculation of Change in Hot Metal Production Rate		**Comments**
Change in total steel production rate at No. 2 BOF (tons steel/yr)	0	Change in hot metal/ratio hot metal to steel
Change in total steel production rate at No. 4 BOF (tons steel/yr)	908,965	Change in hot metal/ratio hot metal to steel
Ratio of hot metal to steel	0.850	Hot metal to steel ratio of 0.85 from 7/11/07 E-mail
Change in hot metal annual production/throughput change (tons/yr)	772,620	From Section D.0 of Title V Permit

Calculation of Change in Pellet Throughput Rate		**Comments**
Ratio of pellet throughput rate per ton of hot metal produced		
Change in pellet annual production/throughput change (tons/yr)	1,295,275	Increase in IDEM public notice SPM

Calculation of Change in Coke Consumption Rate		**Comments**
Ratio of coke consumption rate per ton of hot metal produced	0.384	Based on actual operating data
Change in annual coke consumption rate (tons/yr)	296,686	ratio x change in hot metal production rate

Calculation of Change in Slag Granulation and Slag Pit Production Rate		**Comments**
Ratio of slag generation per ton of hot metal produced	0.295	Maximum-Production records 1/05-4/07
Total slag generation rate (tons/yr)	227,868	change in tons hot metal x ratio of tons slag per ton hot metal
Ratio of slag granulation to total slag production	0.64	Minimum-Production records 1/05-4/07
Ratio of slag to total slag production	0.36	Based on total slag generated and granulation ratio
Revised Slag Granulation Potential Production Rate (tons/yr)	146,341	granulated ratio x total slag generation rate
Revised Slag Pit Potential Production Rate (tons/yr)	81,527	pit ratio x total slag generation rate

Calculation of PCI Change in Throughput Rate		**Comments**
Pounds of PCI consumed per ton of hot metal (before)	320	Based on 160 kg PCI/metric ton HM
Pounds of PCI consumed per ton of hot metal (after)	431	Maximum-Production records 1/05-4/07
Average tons of hot metal thruput (before)	3,737,016	October 1998 through September 2000
Average tons of hot metal thruput (after)	4,509,636	3,737,016 + change in hot metal production rate)
Tons of PCI consumed per year (before)	597,923	320 / 2000 x 3,737,016
Tons of PCI consumed per year (after)	971,077	lb/ton from production records 1/05-4/07 / 2000 x (3,737,016 + change in hot metal production rate)
Change in PCI consumed per year	373,155	Difference between before and after

Calculation of Lime Change in Throughput Rate		**Comments**
Ratio of pounds of lime per ton of steel at BOF	110.8	Maximum-Production records 1/05-4/07
Change in lime consumed per year (tons/yr)	50,335	Maximum ratio from production records 1/05-4/07 x change in No. 2 BOF steel production

Calculation of Change in Total Steel Production Rate		**Comments**
Change in total steel production rate at No. 2 BOF (tons steel/yr)	0	
Change in total steel production rate at No. 4 BOF (tons steel/yr)	908,965	

Calculation of Fuel Consumption Rates at No. 7 BF Stoves		**Comments**
BFG stoves consumption rate in mmcf per ton of hot metal	0.0190	Maximum-Production records 1/05-4/07
NG stoves consumption rate in mmcf per ton of hot metal	0.000625	Maximum-Production records 1/05-4/07
Change in BFG Consumption Rate (mmscf/yr)	14,655	Change in tons of hot metal x BFG consumption rate in mmscf per ton hot metal
Change in NG Consumption Rate (mmscf/yr)	483	Change in tons of hot metal x NG consumption rate in mmscf per ton hot metal

Calculation of Fuel Consumption Rate at No. 5 Boiler House		**Comments**
No. 7 BF BFG Generation Rate (mmscf/ton hot metal)	48,750	
Change in No. 7 BF BFG generation rate (mmscf/yr)	37,665	Change in tons of hot metal x BFG generatio rate in mmscf per ton hot metal
Change in BFG Consumption Rate at No. 5 Boiler House (mmscf/yr)	28,082	Change in No. 7 BF BFG generation rate - Change in No. 7 BF BFG consumption rate
2001 NG consumption rate (mmscf/yr)	483.38	2001 EIS Report
2001 BFG consumption rate (mmscf/yr)	100,287.83	2001 EIS Report
2001 MG consumption rate (mmscf/yr)	960.22	2001 EIS Report
2001 No. 7 BF production rate (tons/yr)	3,105,587	2001 EIS Report
Mixed Gas heating value as a percent of natural gas heating value	71.90%	71.9 percent of natural gas heating value
Mixed gas heating value	733.38	1020 BTU/scf x 71.90 percent
NG Heat Input (MMBTU/yr)	493,048	2001 NG consumption rate x natural gas heating value
BFG Heat Input (MMTU/yr)	9,025,905	2001 BFG consumption rate x BFG Heating Value
MG Heat Input (MMBTU/yr)	704,206	2001 MG consumption rate x mixed gas heating value
Total heat input (MMBTU/yr)	10,223,158	Sum of NG, BFG and MG heat inputs
2001 total heat input per ton of hot metal	3.29	Total heat input / tons hot metal
Change in total heat input at No. 5 Boiler House (MMBTU/yr)	2,543,357.08	Change in hot metal production x 2001 total heat input per ton of hot metal
Change in BFG heat input at No. 5 Boiler House (MMBTU/yr)	2,527,380.00	Change in BFG consumption rate x BFG heating value
Remaining heat input at No. 5 Boiler House made up by natural gas (MMBTU/yr)	15,977.08	Total heat input - heat input from BFG
Change in NG Consumption Rate at No. 5 Boiler House (mmscf/yr)	15.7	

Calculation of Fuel Consumption Rate at No. 2 BOF Furnace Flare Stacks		**Comments**
Consumption rate per ton of steel (mmscf/ton)	0.000015	Maximum-Production records 1/05-4/07
Change in No. 10 Furnace Flare Stack consumption rate (mmscf/yr)	0.00	Consumption rate x change in tons of steel produced
Change in No. 20 Furnace Flare Stack consumption rate (mmscf/yr)	0.00	Consumption rate x change in tons of steel produced

Calculation of Furnace Additives Bin Loading/Hopper House Throughput Rate		**Comments**
Ratio of tons of lime/flux handled per ton of steel produced	0.06472	Maximum-Production records 1/05-4/07
Change in Furnace Additive Bin Loading throughput rate (tons/yr)	58,829.08	Change in steel production x ratio
Change in Furnace Additive Hopper House throughput rate (tons/yr)	58,829.08	Change in steel production x ratio

Calculation of Fuel Consumption Rates at Lime Plant		**Comments**
Natural Gas Heating Value (BTU/scf)	1,020	Inland Steel
Heat Consumption Rate (MMBTU/ton of lime)	5.00	Inland Steel heat consumption per ton of lime
Change in lime consumed per year (tons/yr)	50,335	Maximum ratio from production records 1/05-4/07 x change in No. 2 BOF steel production
Total Heat Input (MMBTU/yr)	251,677	Heat Consumption Rate x change in steel production
Natural Gas Heat Input (MMBTU/yr)	251,677.1	Total heat input x percent natural gas
Change in Natural Gas Consumption Rate (mmscf/yr)	246.74	Natural gas heat input / natural gas heating value

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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TO: Michael Long
ArcelorMittal USA, Inc.
3210 Watling Street MC8-130
East Chicago, IN 46312

DATE: May 27, 2010

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

SUBJECT: Final Decision
Title V
089-184 91-00316

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

May 27, 2010

TO: East Chicago Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: ArcelorMittal USA, Inc.
Permit Number: 089-18491-00316

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

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

TO: Interested Parties / Applicant

DATE: May 27, 2010

RE: ArcelorMittal USA, Inc. / 089-18491-00316

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
http://www.in.gov/ai/appfiles/idem-caats/

If you would like to request a paper copy of the permit document, please contact IDEM's central file room at:

Indiana Government Center North, Room 1201
100 North Senate Avenue, MC 50-07
Indianapolis, IN 46204
Phone: 1-800-451-6027 (ext. 4-0965)
Fax (317) 232-8659

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 11/14/08

Mail Code 61-53

IDEM Staff	CDENNY 5/27/2010 ArcelorMittal USA, Inc. 089-18491-00316 (final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Michael Long ArcelorMittal USA, Inc. 3210 Watling Street MC8-130 East Chicago IN 46312 (Source CAATS)									
2		Mark Whalen VP and GM ArcelorMittal ArcelorMittal USA, Inc. 3210 Watling Street MC8-124 East Chicago IN 46312 *(RO CAATS)*									
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 *(Local Official)*									
4		Indiana State Representative 2nd District 4114 Butternut St East Chicago IN 46312 *(Legislator)*									
5		East Chicago Public Library 2401 E Columbus Dr East Chicago IN 46312-2998 *(Library)*									
6		Gary - Hobart Water Corp 650 Madison St, P.O. Box M486 Gary IN 46401-0486 *(Affected Party)*									
7		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 *(Health Department)*									
8		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 *(Affected Party)*									
9		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 *(Affected Party)*									
10		Shawn Sobocinski 3229 E. Atlanta Court Portage IN 46368 *(Affected Party)*									
11		Ms. Carolyn Marsh Lake Michigan Calumet Advisory Council 1804 Oliver St Whiting IN 46394-1725 *(Affected Party)*									
12		Mark Coleman 9 Locust Place Ogden Dunes IN 46368 *(Affected Party)*									
13		Mr. Chris Hernandez Pipefitters Association, Local Union 597 8762 Louisiana St., Suite G Merrillville IN 46410 (Affected Party)									
14		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 *(Affected Party)*									
15		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 *(Local Official)*									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

FACSIMILIE OF PS Form 3877

Mail Code 61-53

IDEM Staff	CDENNY 5/27/2010 ArcelorMittal USA, Inc. 089-18491-00316 (final)			AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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1		Anthony 2006 E. 140th Street East Chicago IN 46312 (Affected Party)									
2		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 *(Affected Party)*									
3		Mr. Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 *(Affected Party)*									
4		Fritz Enterprises 1650 West Jefferson Trenton MI 48183 *(Affected Party)*									
5		Beemsterboer Slag 3411 Shieldfiled Ave. Hammond IN 46327 *(Affected Party)*									
6		East Chicago Recovery 5222 Indianapolis Blvd. E. Chicago IN 46312 *(Affected Party)*									
7		Heckett Multiserv P.O. Box 3550 E. Chicago IN 46312 *(Affected Party)*									
8		Oil Technology 1203 Sheffield Ave. Dyer IN 46311 *(Affected Party)*									
9		Mid Continent Coal and Coke 915 West 175th St. Homewood IL 60430 *(Affected Party)*									
10		Indiana Harbor Coke 3210 Watling St. E. Chicago IN 46312 *(Affected Party)*									
11		Coke Energy 2000 York Road Suite 129 Oak Brook IL 60523 *(Affected Party)*									
12		LaFarge North America 3210 Watling St. E. Chicago IN 46312 *(Affected Party)*									
13		Heritage Slag Products 5400 West 86th St. Indianapolis IN 46268 (Affected Party)									
14		Ms. Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 *(Affected Party)*									
15		Calumet Township Trustee 31 E 5th Avenue Gary IN 46402 *(Affected Party)*									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

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1		Joseph 11723 S Oakridge Drive St. John IN 46373 (Affected Party)									
2		Gary City Council 401 Broadway # 209 Gary IN 46402 *(Local Official)*									
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